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(1992–93)

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PART 5

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(1992-93)

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E. Oldfield

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1987	Aitken, Major R.C., B.Sc.	42 Priory View Road, BH9 3JQ
1987	Aitken, Mrs S.A., B.A.	" " "
1986	Allin, M.E.A., L.D.S.	3 Private Road, Marsh Lane, Lymington SO41 9EW
1960	Alsford, Mrs J.R.	20 Church Road, Ferndown,BH22 9EU
1989	Anderson, Mrs J.L.	24 Baronsmede, 17 Branksome Wood Road BH2 6PE
1977	Andrew, A., M.A.	F7 Pine Grange, Bath Road, BH1 2PN
1986	Andrews, Mrs D.L.	38 Cecily Court, Cambridge Way, Minchinhampton Glos. GL6 9DN
1989	Andrews, J.	28 Mayfield Road, Moordown BH9 1TQ
1989	Andrews, Mrs P.	" " "
1993	Andrews, Mrs P.	5 Kingsmead Court, Redcotts Lane, Wimborne BH21 1JY
1983	Andrews, Mrs P.A.	99 Carbery Avenue BH6 3LP
1991	Armour, J.S., C.Eng., M.I.E.E.	6 Grosvenor Crt, 17 Grosvenor Rd, BH4 8BQ
1991	Armour, Mrs M.F., SRN	" " " "
1985 *	Arnold, W.A.H.	8 Cranleigh Gardens, BH6 5LE
1967 L	Arnold, Mrs M.	" " "
1989	Arnold, W.G.	The Pantiles, School Lane, Thorney Hill, Christchurch BH23 8DT
1989	Arnold, Mrs N.E.	" " "
1986	Artless, Mrs E.J.	47B Parkwood Road, BH5 2BS
1975	Ash, Miss C.C.	22 Pendennis, 7 Derby Road BH1 3PU
1986	Ashbee, Miss M.	63 Saxonbury Road, BH6 5ND
1992	Austin, Ms. P.A.	30 The Vineries, Wimborne BH21 2PX
1974	Ayton, D.J.	201 Kinson Road, BH10 5HB
1987	Atyeo, Mrs M.A.	31 Solent Road, BH6 4BP
1989	Ayles, Mrs N.	1 The Lawns, 60 Southbourne Road BH6 5AE
1977 *	Ball, Miss B.M.	9 Derby Road BH1 3PX
1966 L	Band, Miss E., B.A.	9 Deveron Lodge, 23 Christchurch Road, BH1 3NS
1990	Banks, Miss B.R.	Pine Cottage, 1 Pine Avenue BH6 3SN
1992	Barker, Mrs K.M., M.A.	St. Andrews, Westbury, Sherborne, DT9 3RA
1978	Barnett, Miss L.M., B.A.	Melbourne House, 18 Wharncliffe Road BH5 1AH
1985	Barraclough, P.K.	157 Cooden Sea Road, Bexhill on Sea TN39 4TE
1971 L	Bartram, T., F.N.I.M.H. F.R.S.H., F.H.A.	6 Browning Avenue, BH5 1NN
1991	Bates, M.W.	Smugglers, 8 Ringwood Rd, Sopley, Christchurch BH23 7BE
1978	Bateson, Miss J.	8 Meadow Crt., Leigh Common, Wimborne BH21 2BG
1982	Baxter, Miss K.C.	13 Glencoe Road, BH7 7BE
1988	Behennah, F.E., C. ENG., FRAeS, FIMechE, FIQA, FBIS.	11 Pine Manor Road, Ashley Heath, Ringwood BH24 2EZ
1991	Benke, Miss P.E.	4 Glencoe Road, Queens Park BH7 7BE

1980+V	Bentley, M.P., O.B.E., C.Eng.	5 Bournewood Drive, BH4 9JP
1980	Bentley, Mrs E.P.,A.T.D.	" " "
1986	Berington, J.	Flat 2, 1 St. Augustines Road, BH2 6NX
1951 L	Blandford, Mrs R.I.	B18 Elizabeth Court, Grove Road, BH1 3DU
1964 *	Blower, Miss M.	32 Selkirk Close, Merley, Wimborne BH21 2JP
1993	Bone, Miss C.J.	2 Mason's Court, Windham Road BH1 4RA
1990	Booth G.C., M.Sc.	23 Fairview Crescent, Broadstone BH18 9AL
1992	Booth, Mrs A.H.	" " "
1989	Bostock, Mrs A.	6 Rowena Road, BH6 8AE
1983	Boynes, R.C.	43 Keith Road, BH3 7DS
1983	Boynes, Mrs R.	" " " "
1993	Bradley, K.C., LLB	6 Cadogan Court, Christchurch Road BH1 3NT
1984	Branch, J.	17 Alexandra Road, BH6 5JA
1984	Braund, Miss C.H., B.Sc.	19 William Road, BH7 7BB
1968	Brazier, Miss M.A.	4 Cedar Avenue, BH10 7EF
1991	Brazzell, Mrs M.	B4 San Remo Towers, Sea Road, BH5 1JT
1989 L	Bridal, J.R.	44 Iddesleigh Road, BH3 7NQ
1989	Brinkman, Mrs D.J.	3 Victory Court, 33 Boscombe Spa Road BH5 1AS
1970	Brooks, J.L.	7 Milton Road, Wimborne, BH21 1NY
1970+VL	Brooks, Miss M.M., Ph.C. M.R. Pharm.S.,F.R.S.H.,F.R.E.S.	" " " "
1992	Brown G., B.Sc., C.Chem. M.R.S.C.	Flat 9 Annandale Court, 5 Clifton Rd BH6 3NZ
1993	Brown, Mrs K.J.	1 Connaught Road BH7 6NA
1937+V*	Brown, S.C.S.,F.D.S.	"Villa Guita" Camino del los Garcias
(1967)	R.C.S., L.D.S.	43G La Fustera, Benissa, Alicante, Spain
1986 L	Burch, Miss O.E.	10 Chatsworth Road, Poole, BH14 6QL
1988	Burton, Mrs M.	21 Hamilton Court, Johnstone Road, Christchurch, BH23 7NG
1930	Bury, Miss G.J.	10 Rossley Close, Christchurch, BH23 4RR
1977	Butt, Mrs J.M.	599 Chilbridge, Hillbutts, Wimborne BH21 4DS
1993	Bye, O.L.	22 Shelton Road, BH6 5EZ
1993	Bye, Mrs. D.M.	" " " "
1989	Carlton, Miss L., M.A.	1A Michelgrove Road, BH5 1JH
1989	Cecil, Mrs M.	9 Highfield, 112 Belle Vue Road BH6 3BH
1993	Charman, M.	1 Station Street, Lymington SO41 9BA
1988	Chatterton, R.H., M.A.	93 South Western Crescent, Poole, BH14 8RP
1992	Cherrett, Mrs E.M.	1 Seacombe Road, Poole BH13 7RJ
1942 *V	Chomé Mrs W.	Queensmount, 18 Queens Park West Drive BH8 9DA
1988	Chown, P.	18 Felton Road, Poole, BH14 0QS
1988	Chown, Mrs J.	" " "
1974 L	Clapton, Miss D.E.	1 Alington, 25 Marlborough Road, BH4 8DE
1977	Clasby, P.S.	12 Haglane Copse, Lymington, SO41 8DT
1963 L	Clode, J.C.	11 Elmstead Road, Canford Cliffs, Poole
1963	Clode, Mrs V.M.	" " " BH13 7EZ
1990	Coast, Mrs O.	14 Rayscliff, 58 West Cliff Road BH4 8BE
1983	Collings R., B.A., P.G.C.E.	73 Harland Road, BH6 4DW
1981	Colyer, L.E.	51 Parkwood Road, BH5 2BS
1981	Colyer, Mrs W.M.	" " "
!992	Cooke, B.	15 Pinewood Road, Ferndown BH22 9RW
1992	Cooke, Mrs V.	" " " "
1941 L	Cooper, Mrs E.M.	B18 Elizabeth Court, Grove Road BH1 3DU
1993	Cooper, H.G.	Apt 7 Pegasus Court, Lansdowne Road BH1 1RH
1993	Cooper, Mrs. B.E.	" " " " " "
1976+V*	Copp, Mrs V.E., B.A., F.G.S.	41 Feversham Avenue BH8 9NH
1991	Cowe, R.A.	149A Barrack Road, Christchurch BH23 2AP
1991	Cowe, Miss M.	" " " "

1986	Cowles, Mrs M.M.	16 Clowes Avenue, BH6 4ES
1991	Cox, G.E., MSE, MBBI	248 Castle Lane West BH8 9TT
1992	Cox, H.C.	22 Baring Road, BH6 4DS
1986	Craddock, M.S., B.Sc.	17 Curzon Road BH1 4PN
1973	Crane, Mrs R.C.	26 Montrose, 12 Vicarage Rd, Verwood BH31 6DR
1977	Crompton, Mrs J.E.	148 Evering Avenue, Poole BH12 4JH
1982	Crooks, Miss L.	42 Belle Vue Gardens, Belle Vue Road, BH6 3BG
1975	Curtis, Mrs B.	114 Cutlers Place, Wimborne, BH21 2AZ
1987	Davies, S.	88 Castle Road, BH9 1PN
1987	Davies, Mrs M.	" "
1976 L	Davis, Mrs B.	9 Oratory Gardens, Martello Road South, Poole, BH13 7HJ
1976*+V	Davis, Miss M.W.S.	26 William Road, BH7 7BA
1987	Day R.C.	25 Parkway Drive, BH8 9JW
1967	Deacon, Miss M.G.K.	42 Belmont Road, Poole, BH14 0DB
1988	DeConinck, Mrs B.	34 Crescent Court, Chine Crescent BH2 5LA
1993*	Delair,J.B., B.Sc., DipEd	Foxleigh, 19 Cumnor Road, Wootton, Boar's Hill Nr. Oxford OX1 5JP
1975	Dickinson, Mrs H.M.	9a Moorland Road, BH1 3ST
1991	Dingwall, R.G.	New Farm Lodge, Gussage St. Michael, Wimborne
1991	Dingwall, Mrs D.N.	" " " BH21 5JE
1972	Dolamore, Mrs M.	15 Dene Walk, Ferndown,BH22 8PQ
1991	Donner, Mrs J.	21 Hamilton Close BH1 4ET
1980	Downes, J.P.	10 Leslie Road, BH9 2JH
1970	Draper, G.S.	44 Brackendale Road, BH8 9JA
1970	Draper, Mrs O.G.	" " "
1991	Draper, Mrs G.	Flat 50, Fenwick Court, Portchester Road
1988	Draycon, Miss E.P.	51 Talbot Road, BH9 2JB
1991	Drayton, Miss I.W., Dip.Arch.	5 Orchard Mews, Riverdale Ln, Christchurch BH23 1RL
1983	Drew, Mrs C.M.F.	4 Bower Road, BH8 9HQ
1992	Dufall, Mrs R.	32 Mallard Road, BH8 9PL
1985	Duncan, Mrs M.	3/88 Richmond Park Avenue, BH8 9DR
1985	DuPuy, Mrs G.	15 Brassey Road, BH9 1PW
1978	Eames, K.M., F.C.A.	152 Cranleigh Road, BH6 5JP
1989	Edgley, Mrs B.	8 Purbeck Court, Boscombe Overcliff Drive, BH5 2EN
1984	Edwards G.	65 Alvescot Road, Carterton, Oxford OX8 3JP
1984	Edwards, MrsG.	" " "
1979	Elgood, J.H., M.A.	16 The Anchorage, 157 Mudeford BH23 4AG
1979	Elliott, Miss M.	87 The Grove, Christchurch, BH23 2ND
1990	Emerson, Miss J.	8 Haven Road, Corfe Mullen BH21 3SY
1991	Emery-Wallis, F.A.J. D.L., FSA, FRIBA	Froddingly, Craneswater Pk, Portsmouth PO4 0NR
1976	Erskine, S.L.W.,M.D.,D.P.H.	16 Oakwood Road, Christchurch BH23 5NH
1976	Erskine, Mrs K.M.	" " "
1990	Etches, S.	"Ashfield", Kimmeridge, Wareham BH20 5PE
1982	Evelyn, Mrs M.	30 Mayford Road, Poole, BH12 1PU
1960	Exton, Miss J.M.	4 Worthington Crescent, Poole, BH14 8BW
1953 L	Farwell, Mrs S.M.A.	Latch Farm. Fairmile, Christchurch BH23 2LB
1965	Fildes, Mrs E.M.	45 Wickfield Avenue, Christchurch, BH23 1JA
1981	Fitsgibbon, Miss M.T.	41 Homeleigh House, 52 Wellington Road, BH8 8LF
1982	Foot, Miss G.M.	C6 Twynham Court, Dean Park Road BH1 1JB
1979	Forrest, L.G.	30 Meyrick Court, St. Winifred's Road, BH2 6PH
1993	Forrester, J.	37 Mayfield Road BH9 1TQ

1990	Francis, Mrs P.M.	32 Oaks Drive, St. Leonards, Ringwood BH24 2QT
1993	Freeman, Mrs. R.	2 Seaton Close, Highcliffe BH23 5HP
1987 L	Galpin, Mrs H.I.	191 Tuckton Road, BH6 3LB
1982	Gandy, F.W.	75 Littledown Avenue, BH7 7MX
1993	Garner, Mrs. F.C.	9 Derby Road, BH1 3PX
1989	Garton, Mrs Y.C.	2 Stourbank Road, Christchurch BH23 1LM
1992	Geddes, Mrs S.M., B.A.	50 Fairhaven Court BH5 1DG
1989	George, R.S., C.Biol. MI.Biol, FLS, FRES	54 Richmond Park Avenue BH8 9DR
1989	George, Mrs D.E.L.	" " " " "
1974	George, W.L.	5 Willow Park, Park Road, Poole BH14 0JP
1974 +V	George, Mrs J.	" " "
1980	Glass, A.	6 Horseshoe Court, Dean Park Road BH1 1HU
1980	Glass, Mrs P.	" " "
1991	Godfrey, Dr. D.J. B.Sc., PhD,	77 Merley Ways, Wimborne, BH21 1QW
1991	Godfrey, Mrs M.	" " " "
1984	Gonzalez - Nache, Mrs C.J.	34 Bridport Road, Poole, BH12 4BY
1987	Gorman, P.	24 Hazel Drive, Ferndown BH22 9SW
1993	Grainger, Mrs. M., B.A.	60 Broughton Avenue BH10 6JA
1993 A	Grainger, Miss F.	" " "
1991	Granville-Lewis, Mrs E.	50 Chessel Avenue BH5 1LJ
1977 L	Gray, Mrs J.F., B.A.	62 Dulsie Road, BH3 7ED
1992	Green, M.T.	Down Farm, Woodcutts, Salisbury SP5 5RY
1992	Green, Mrs K.F.M.	" " " "
1989	Gregory, A., B.Sc.,ACSM	31 Whitecliff Road, Poole BH14 8DX
1990	Hackworth, Miss J.E.C.	22 Derby Road, BH1 3QA
1986	Hall, Mrs D.	B9 St. Catherines Court, 35 Christchurch Road, BH1 3NS
1988	Hall, Mrs H.E.	18 Pine Avenue, BH6 3SN
1990	Hancock, Miss C.M.	Flat 1, 66 Carbery Avenue, BH6 3LG
1972	Harding, R.	3 Portchester Place, BH8 8JS
1976	Hardy, W.	1 Gorsecliff Court, 5 Boscombe Spa Road
1976	Hardy, Mrs E.	BH5 1AW " "
1984	Harrison, K.J.	49 Sheldrake Road, Mudeford, BH23 4BP
1984	Harrison, Mrs W.M.	" " "
1991	Hart, Mrs K.	11A Stour Court, 76 Princess Rd, Branksome BH12 1BS
1986	Hart, Miss M.E.A.S.	13A Dunbar Road, BH3 7AZ
1978	Harwood, R.E.	10 Blakehill Crescent, Poole BH14 8QR
1978	Harwood, Mrs A.M.	" " "
1964	Hatton, R.H.S., M.A.	Pine Cottage, Lower Rowe, Holt BH21 7DZ
1988	Hawkins, A.J., F.C.B.S.I.	15 Beamish Road, Canford Heath BH17 7SQ
1988	Hawkins, Mrs A.J.	" " "
1973	Hayball, Miss G.	85 Homelake House, 36 Station Road, Parkstone BH14 8UD
1991	Haynes, Mrs J.	19 Craigmoor Avenue, BH8 9LW
1969	Hayter, Miss E.	38 Edgehill Road, BH9 2PQ
1985	Haywood, P.J., B.Sc.	74 Alyth Road, BH3 7ND
1985	Haywood, Mrs V.J.	" "
1988	Hearnshaw, Mrs A.A.	58 Beaufort Road, BH6 5AN
1971	Heaton, Mrs M.I.	8 Mayfair, 74 Westcliff Road, BH4 8BG
1991	Henshaw, Miss N.K.	33 Northbourne Avenue, BH10 6DG
1992	Hill, C.D.	126 The Grove, Christchurch BH23 2HE
1991	Hill, J.D.,L1B.	18 Stuart Road, Highcliffe BH23 5JS
1991	Hill, Mrs G.M.	" " " "
1990	Hill, Dr. V. J.D., Ph.D., B.Met.,FIM.	Flat 21 Keythorpe, 25 Manor Rd BH1 3ER

1989		Hill, Mrs M.B.	Flat 21 Keythorpe, 25 Manor Rd, BH1 3ER
1993		Hillman, Mrs. J.	8 Bailey Crescent, Poole BH15 3EY
1985		Hilton, J., M.A.	1 Weston Grange, 10 Gervis Rd BH1 3EG
1985		Hilton, Mrs D., B.Sc.	" " "
1985		Hilton, Miss A.J.	6 Burley Grange, 3 Weston Drive BH1 3EH
1973		Hilton, Miss M.L., B.Sc., Ph.D.	47 Belle Vue Gardens, Belle Vue Road, BH6 3DF
1962	*	Hipperson, Miss M.	19 Richmond Wood Road, BH8 9DG
1992		Hiscock, Mrs J.W.	16 Mayfield Close, Ferndown, BH22 9HS
1992		Hobson, Dr. J.H.	8 Beaufort Road, BH6 5AL
1992		Hobson, Mrs E.M.	" " "
1992		Hodgson, Mrs M.P.	Flat 4, Marina Towers, The Marina BH5 1BJ
1991		Hood, G.M., MA, BSc.	14 Cavendish Road, BH1 1RE
1984		Hood, Mrs P.	36 Springbourne Court, 130 Windham Rd, BH1 4RD
1993		Horne, J.E.	11 Elizabeth Avenue, Christchurch BH23 2DN
1993		Horne, Mrs. B.	" " " "
1980		Huggins, S.	33 Hartley Down, 60 Christchurch Road, BH1 3PJ
1983		Hull, Mrs P.F.	12 Hilton Grange, 20 Knyveton Road BH1 3QS
1979		Hyde, R.A.	7 Coy Pond Road, Poole, BH12 1JT
1979		Hyde, Mrs B.F.	" " "
1993		Ireson, Miss H.	51 St. Michael's Road BH2 5DP
1972		Jarrold, Miss C.W.	Maryfield, 17 Florence Road BH5 1HH
1980		Jenkinson, A.G., B.Sc.	4 Warren Edge Road, BH6 4AU
1991		Johnson, Mrs M.M.	50 Hinton Wood Avenue, Highcliffe BH23 5AH
1976		Jordan, Mrs V.M.	18 Braidley Road, BH2 6JX
1993		Keefe, Miss M.	32 Pinehurst Park, West Moors BH22 0BW
1970		Kent, H.M., B.Sc.	62 Canberra Road, Christchurch BH23 2HW
1970		Kent, Mrs M.	" " "
1986		Kernan, Mrs G.L.	652 Castle Lane West, BH8 9UG
1991		Kessen, Mrs E.	Flat 5 Stourview Court, 76 Southbourne Road, BH6 5AG
1985		King, Rev. F.W.	51a Clingan Road, BH6 5PZ
1993		King, Mrs. S.G.	9 Douglas Road BH6 3ER
1987		Kirkpatrick, P.C.	7 Marchwood, Manor Road, BH1 3EY
1991		Koeb, Mrs J.	42 Hillbrow Road, BH6 5NT
1991		Lamb, Mrs L.D.	6 Silchester Close, BH2 6PY
1989		Larsson, Mrs P.M., M.A.	50 Craigmoor Avenue, BH8 9LP
1980		Laughrin, I.G.	54 Eastcliff Way, Christchurch BH23 4EY
1980		Laughrin, Mrs H.M.	" " "
1979		Lawrence, Mrs K.	27 Gladstone Road West, BH1 4HZ
1982		Layton, S.F.	7 Sycamore Close, Christchurch BH23 2EL
1992		Leake, D.,B.Ed.	47 Portchester Road BH8 8JU
1992		Leake, Mrs B.	" " "
1992		Leake, Mrs E.	Flat 10, 16A Wimborne Road BH2 6NT
1987		Leather, Mrs L.G.	8 Norwich Mansions, Norwich Ave West BH2 6AL
1992		Leddra, S.G., B.Sc.	25 Montague Road BH5 2EW
1966	+V	Lee, W.H.	18 Ravenshall, West Cliff Road, BH4 8AT
1967		Lee, Mrs L.B.	" " " "
1975		Lees, R.G.	4 Seacliff Court, Clifton Road BH6 3PB
1993		Legge, Mrs. J.	111 Parkstone Avenue BH14 9LP
1981		Leonard, Mrs A.C.	12 Argyle Road, Christchurch, BH23 3NW
1983		Le Pard, G., B.Sc., F.R.E.S.	Matchams View, Hurn Road, Ringwood BH24 2BP
1985		Levick, Miss E.M.	25 Crescent Court, Chine Crescent, BH2 5LA
1983		Levy, D.R.H.	25 Cedar Avenue, Christchurch BH23 2PS
1991		Library	Lansdowne Ref. Library, Meyrick Road BH1 3EB

1970	Lilly, Mrs P.	78 St. Lukes Road, BH3 7LU
1986	Loader, W.E.	28 Parkway Drive, BH8 9JW
1986	Loader, Mrs D.	" " "
1991	Long, Mrs D.C.	69 Covena Road, BH6 5LW
1993	Lovell, Mrs. M.E.	18 Sandringham Close BH9 3QP
1984	Luckett, Miss J.	9 Wilverley Gardens, Queens Road, Blandford, DT11 7LE
1976	Lund, Mrs M.S.	8 William Road, BH7 7BA
1991	McCormack, J.J., BSc.	Flat 4 Grosvenor Crt, Suffolk Rd, BH2 5SX
1986	Macdonald, Mrs J., B.A.	D5 Kings Walk, 19A Knyveton Road BH1 3QZ
1993	McGovern, Miss M., SRN	9 Vicarage Road, BH9 2SA
1983	Mackintosh, Miss S.M.	52 Coombe Avenue, BH10 5AE
1974	McMullin, Mrs E.G.	B8 St. Catherines Court, 35 Christchurch Road, BH1 3NS
1973	Maddox, C.B.M.	31 Egerton Road, BH8 9AY
1956 *V	Maddox, Mrs L.M.	" " "
1978	Mann, Mrs M.	9 Endfield Close, Christchurch BH23 2HH
1990	Manning, Mrs D.P., B.Sc.	12 Romney Road BH10 6JR
1993	Manning, Miss L.J., RGN	3 Crest Road, Parkstone BH12 3DA
1984	Marsh, Mrs S.M.	8 Holme Road, Highcliffe, BH23 5LJ
1991	Mason, Mrs P.M.	10 Corfe Lodge Rd, Broadstone BH18 9NQ
1993	Meade, D.L.C.	29 King Edward Avenue, BH9 1TY
1993	Meade, Miss L.E.	" " "
1992	Meeking, F.A.	37 The Chase, Verwood BH31 7DD
1976	Merchant, Miss J.M.	7 Stourton Court, 27 Marlborough Rd, BH4 8DE
1989	Miles, K.E.T.	111 Station Road, West Moors Wimborne BH22 0HS
1989	Miles, Mrs E.	" " "
1983	Mitchell, Miss J.E.	24 Elgar Cres., Droitwich Spa, Worcs WR9 7SP
1984	Mitchell, S.F., M.I.E.E.E.	162 Cranleigh Road, BH6 5JD
1987	Monk, Mrs B.E.	41 Boundary Road, BH10 4HN
1972	Moore, W.H.	11 Hillfort Close, Castle Park, Dorchester DT1 2QT
1981	Morgan, W.D.	47 Sandecotes Road, Poole, BH14 8PA
1973	Morris, T.E.	Sandpit, Frogham Hill, Fordingbridge, SP6 2HW
1973	Morris, Mrs J.F.	" " "
1989	Mosley, Mrs H.	2 Rayscliff, 58 West Cliff Road BH4 8BE
1989	Mosley, Miss K., LRAM.	4 Bolton Court, Belle Vue Road BH6 3DQ
1984	Mountain, Mrs A.	10 Elms Avenue, Lilliput, BH14 8EF
1993	Mullett, F., MIEEIE	33 Coy Pond Road, Poole BH12 1JT
1993	Mullett Mrs. M.	" " " "
1993	Munro, M.	10 Derby Road, BH1 3QA
1992	Murray, A.	40 St. Catherine's Road BH6 4AD
1973	Nash, G., M.A., F.R.A.S	12 St. Annes Road, Upton, Poole BH16 5PT
1993	Neave, Miss H.L.	24B Surrey Road, BH4 9BX
1990	Newitt, Mrs Jessie	22 Venning Avenue, Bear Cross BH11 9QF
1984	Newman, Mrs E.M.	C7 St. Catherines Court, 35 Christchurch Road, BH1 3NS
1967	Nicklen, Mrs L.V.	77 Holdenhurst Avenue, BH7 6RB
1992	Noble, Mrs A.E.	Flat 2 Edenholme, 59 Grove Rd BH1 3AT
1988	Norman, Miss N., B.A.	49 Christchurch Road, BH1 3PA
1984	North, K.J.	12 Littledown Avenue, BH7 7AN
1977	North, Mrs J.L.	" " "
1977 L	Norvall, Miss A.C.	23 Exton Road, BH6 5FQ
1982	Obee, Mrs G.E.	16 Southwick Road, BH6 5PT
1957	Odell, Mrs G.B.	4 Barclay Mansions, St. Valerie Road, BH2 6PF

1970	Offen, E.C.	4 Ranelagh Road, Highcliffe, Christchurch
1970	Offen, Mrs M.J.	BH23 5DY " "
1986	Oldfield, Miss E.	66 Keith Road, BH3 7DX
1991	Owen-Jones, J.B., B.Sc. Eng. C.Eng., M.I.Mech.E.	Flat 8, Gorsecliff Crt, 3 Boscombe Spa Rd BH5 1AW
1987	Page, Mrs M.R.	8 Craigmoor Close, BH8 9LU
1992	Panchaud, Mrs V.E., SRN	19 Iford Lane, BH6 5RD
1990	Parfitt, Miss B.D.K.	8 Haven Road, Corfe Mullen BH21 3SY
1969+VL*	Parkinson, J.G., F.Z.S.	45 Belle Vue Road, BH6 3DF
1969+VL*	Parkinson, Mrs M.K.	" " "
1992	Parramore, T.S., C.Eng. M.I.MechE.	5 Preston Way, Highcliffe BH23 4QT
1991	Parramore, Mrs B.	" " " "
1991	Pendrey, Mrs L.	4 Durley Road, West Cliff BH2 5JL
1989	Philipson, Mrs S.	85 Bath Hill Court, Bath Road BH1 2HT
1993	Piercy, Miss E.A.	29 Wilna Road, London SW18 3BA
1986	Pike, Mrs L.	5 Wellesley Court, 36 Wellington Road, BH8 8JS
1983 L	Pinniger, R.S., M.R.C.V.S.	50 Branksome Wood Road, Poole BH12 1HR
1991	Plaw, Miss J.M.	1 Newlands Road, Christchurch BH23 3QJ
1989	Ponsford, Mrs R.E.M.	18 Seaway Avenue, Friars Cliff, Christchurch BH23 4EU
1987	Pope, A.E., C.E., M.I.E.E.	33 Pine Crescent, Christchurch, BH23 4LH
1992	Potter, J.C.E., B.Sc.	109 Broadway BH6 4EJ
1992	Potter, Mrs. A.	" " "
1991	Powell, P.F.	2 Wellesley Court, 36 Wellington Rd, BH8 8JN
1991	Powell, Mrs M.P.	" " " "
1987	Preston, Prof. T.A.,M.A., F.M.S.,N.A.I.C.,M.A.S.A.Eng.	30 Russell Drive, Christchurch BH23 3PA
1991	Pullman, S.J.	3 Grosvenor Court, Shelley Rd, Poole BH12 2DF
1988	Quaife, Mrs G.L.	10 Felton Road, Poole, BH14 0QS
1979	Randall, Mrs C.A.M.	C4 William Court, "Greystones" 16 Waterford Rd Highcliffe BH23 5JF
1975	Ratcliffe, G.L., F.C.A.	11 Penrith Road, BH5 1LT
1975	Ratcliffe, Mrs M.N.	" "
1985	Raumann, S., B.Sc.	5 Elphinstone Road, Christchurch BH23 5LL
1985	Raumann, Mrs M.S., B.A.	" " " "
1991	Reid, R.B., B.Sc.,	71 Austin Avenue, Poole BH14 8HD
1991	Reid, Mrs M.	" " " "
1993	Rice, Mrs. L.E.R.	26A Beechwood Avenue BH5 1LZ
1991	Ridsdale, Mrs E.M.	25 St. Alban's Avenue BH8 9EE
1984	Roberts, Miss E.	F12 Pine Grange, Bath Road, BH1 2PN
1992	Roberts, M.B., C.Eng., M.I.C.E.	17 Riversdale Road, BH6 4LH
1992	Roberts, Mrs J.E.	" " "
1963 L	Rossiter, Mrs D.M.	5 Park Homer Rd, Colehill, Wimborne BH21 2SP
1970	Rowe, Miss L.M.	23 The Bluff, Headswell Crescent, BH10 6LQ
1967	Russell-Cotes Art Gallery	East Cliff, Bournemouth, BH1 3AA
1990	Ruth, A.B., M.A.,	1 Grovely Avenue BH5 1JA
1991	Sanders, P.C.	48 Willow Park, Park Road, Poole BH14 0JP
1991	Sanders, Mrs C.M.	" " " "
1980	Saunders, Miss B.A.	Dormer Cottage, Gaunts Common, Wimborne, BH21 4JR
1975 L*	Saunders, Mrs M.W.	2 Memorial Homes, Castle Lane, BH8 9TP
1992	Sayer, Mrs. S.	15 Clowes Avenue BH6 4ER
1951	Sewell, Mrs I.	4 Maundeville Crescent, Christchurch, BH23 2EW
1988	Sharland B.	1 Fishers Heron, East Mills, Fordingbridge, SP6 2JR

1991	Shelton, Miss V.A.	15 Albemarle Road, BH3 7LZ
1993	Shepherd, Mrs. D.M.	40 Montagu Park, Waterford Place, Christchurch BH23 5LG
1993	Shepherd, G.R.	116 Victoria Road, Parkstone BH12 3AF
1981 L	Shepherd, L.H.	1 Coronation Avenue, BH9 1TN
1993	Shepherd, Miss L.H.	3 Crest Road, Parkstone BH12 3DR
1982	Shewring, Miss J.,M.A.	19 William Road, BH7 7BB
1985	Shute, Miss W.	8 Upton Way, Broadstone, BH18 9LY
1984	Simmons, Mrs P.	6 Wychwood Grange, 50 Braidley Road, BH2 6JY
1992	Sinclair, R.C.	19 Russell Mount, Branksome Wood Road BH4 9JN
1989	Singh, Dr. D., MB., DPH,	3 Villa Riva, 9 Marlborough Rd BH4 8DB
1990	Slater, J.D., B.A.	14 Belle Vue Road, BH6 3DP
1990	Slater Mrs A.M.	" " "
1986	Smith, J.E.G.	1 Fieldway, Highcliffe, BH23 4QU
1986	Smith, Mrs B.	" " "
1989	Smith, L., T.Eng.FBIS	3 Grove Road, Barton on Sea, New Milton
1989	Smith, Mrs J.P.	" " BH25 7DT
1986	Smith, Mrs S.	20 Purbeck Road, BH2 5EF
1975	Souter, Miss E.E.	9 Rowan Close, Highcliffe BH23 4SW
1971	Southworth, Mrs N.K.G., M.A.	26 Durley Chine Court, West Cliff Road BH2 5HJ
1976	Sparkes, G., M.I.E.E.	68 Clingan Road, BH6 5QA
1976	Sparkes, Mrs M.	" " "
1991	Speight, E.D.	31A Southbourne Road, BH6 5AE
1986	Spencer, M.A.	42A Gorleston Road, Poole, BH12 1NW
1991	Spibey, Miss B.M.	48 Ashton Road, BH9 2TP
1986	Spratt, S.E.	204 Uplands Road, West Moors, Wimborne,
1988	Spratt, Mrs P.M.	" " BH22 0EY
1984	Stanford, Mrs J.M.	117 Wick Lane, BH6 4LD
1992	Stanley, Mrs B.R.	45 Highridge Cres, Ashley New Milton BH25 5BT
1987	Stirling, H.C., B.Eng.	17 Greenacres, 22 The Avenue, Poole, BH13 6AJ
1989	Stirling, Miss J., M.B.E.	17 Greenacres, 22 The Avenue Poole BH13 6AJ
1993	Stockbridge, D.N.	63A St. Mary's Road, Poole BH15 2LJ
1976 +V	Stocker, Miss M., B.A.	21 Amberley Court, Bath Road BH1 2NL
1990	Stockley, F.E.	26 Lincoln Avenue BH1 4QS
1991	Stoveld, Mrs P.	12 Rowan Close, Highcliffe BH23 4SW
1991	Street, J.B.	48 Walcott Avenue, Christchurch BH23 2NG
1984	Summerell, Miss B.C.	18 Sunnyhill Road, BH6 4HP
1993	Swain, Mrs. A.	The Vicarage, Vicarage Road BH9 2SA
1988	Sweet, Miss A., B.Sc.	24 Sunnyhill Road, BH6 5HP
1988	Sweet, Miss B.	" "
1980 L	Sykes, J.R.	32 Durrington Road BH7 6QA
1993	Symmons, R.H.	1 Charles Street, Blandford DT11 7QY
1979	Taconis, Miss R.M.	78 The Grove, Christchurch, BH23 2HD
1989	Taylor, C.J.	15B Wharfdale Road, BH4 9BT
1990	Taylor, Miss D.E.	42 Queens Park Avenue BH8 9LQ
1992	Taylor, Mrs E.M.	The Hermitage, Roman Rd, Broadstone BH8 9JJ
1980	Taylor, F.	38 Hillbrow Road, BH6 5NT
1979	Taylor, Mrs M.M.	" " "
1993	Taylor, Mrs. H.	E4 Princes Gate, Grove Road BH1 3AW
1991	Taylor, Mrs G.	40 Martins Drive, Ferndown BH22 9SQ
1967 +V*	Teasdill, G., F.M.A., F.R.S.A., F.R.N.S., F.Z.S.	99 Carbery Avenue, BH6 3LP
1967	Teasdill, Mrs N.A.	" " "
1983 L	Teasdill, Mrs V.	287A Belle Vue Road, BH6 3BB
1991	Thom, Miss J.A.	27 Parkwood Road, BH5 2BS
1977	Thomas, Mrs S.	106 Sopwith Crescent, Wimborne BH21 1SP
1988	Thompson, Miss A.R.	Flat 5, 40 Stirling Road, BH3 7JQ

1982		Tiller, B.A.	5A New Road BH10 7DN
1982		Tiller, Mrs M.	" " "
1993A		Tilley, A.R.	96 Carbery Avenue BH6 3LQ
1988		Tonkin, Miss N.E., B.A., MCSP., Dip. TP.	A21 San Remo Towers, Sea Road BH5 1JR
1992		Tottle, T.C.	10 Riverlea Road, Christchurch BH23 1JQ
1975	*	Towndrow, Mrs I	C4 St. Catherine's Court, 35 Christchurch Rd BH1 3NS
1991	A	Towndrow, Master A.	195 Handside Lane, Welwyn Garden City Herts
1991	A	Towndrow, Miss B.J.	" " " " AL8 6TE
1992		Trimmer, C.	22 Springfield Cres., L. Parkstone, Poole
1992		Trimmer, Mrs B.	" " " BH14 0LL
1981	L	Vassie, G.J., F.R.E.S.	40 Cranleigh Gardens, BH6 5LE
1981	L	Vassie, Mrs B.A.	" " "
1993		Veevers Miss K.J., SRN, SCM	1 Villa Riva, 9 Marlborough Rd BH4 8DB
1993		Vickery, Ms J.	5 Cringle Avenue BH6 4HX
1990		Vipond, Mrs E.	76 Oak Tree Pk, St. Leonards, R/Wood BH24 2RH
1993		Wakeford, Mrs. L.A.	4 The Anchorage, 157 Mudeford BH23 4AG
1982		Walker, Miss M.J.	18 New Road, Northbourne, BH10 7DT
1985	L	Walker, Miss W.B.	16 North Craig, Windermere, Cumbria LA23 2ET
1974	*	Wall, T.R.	17 St. Mary's Road, Ferndown, BH22 9HB
1984		Waller, H.M., B.Ed.	41 Branksome Hill Road, Poole BH4 9LF
1992		Wallis, Mrs G.L., L.S.S.Ch., M.B.Ch.A.	Flat 1, 3 Manor Cottage, 25 Christchurch Road BH1 3NS
1980		Warburg, Mrs A.M.	11 Katterns Close, Christchurch, BH23 2NS
1992		Warren, Mrs K.	30 Nugent Road, BH6 4ET
1977+V	*	Watson, F.R.	79 Brackendale Road, BH8 9HZ
1991		Watson, W.D., C.Eng., F.I.C.E.	118 Harewood Avenue BH7 6NT
1993		Watson, Mrs V.M.	118 Harewood Avenue BH7 6NT
1991		Weatherhead, Mrs D.	9 The Anchorage, 157 Mudeford, BH23 4AG
1988		Weeks, Miss B.E.	37 Howeth Road, BH10 5DY
1979		Westbrook, Mrs S.	15 Wheelers Lane, Bearwood, BH11 8RR
1989		Westrap, H.A.	14 Aldridge Road, BH10 5NW
1983		Whattoff, Miss E.M.	48 Belle Vue Gardens, Belle Vue Road BH6 3BG
1990		Wheeler, Mrs E.	70 Wedgwood Drive, Parkstone BH14 8EX
1970	*L	Wheeler, H.P.	47 Belle Vue Road, BH6 3DD
1970	L	Wheeler, Mrs L.	" " "
1982+V	L*	Whieldon, T.P., B.Sc.	10 Branders Lane, BH6 4LL
1982	L	Whieldon, Mrs M.A.	" " "
1992		White, Ms J.M., ARAM, FBSM	Music Dept., BBC, Whiteladies Rd, Bristol BS8 2LR
1990		White, Miss J.S.P., M.A.	Flat C, 9 Stour Crt., 76 Princess Rd, Poole, BH12 1BS
1990		White, Miss P.	10 Dorchester Road, Maiden Newton DT2 0BA
1989		Whitmore, Miss S.M.	48 Victoria Road, Poole BH12 3BB
1978		Whitsed, W.J., F.R.S.A.	41 Feversham Avenue, BH8 9NH
1990		Williams, Mrs D.M.	B15 San Remo Towers, Sea Road BH5 1JS
1985		Williams, B.P.	76 Huntly Road, BH3 7HJ
1979		Williams, Mrs M.	" "
1987		Williams, Mrs M.	39 Homeleigh House, 52 Wellington Rd BH8 8LF
1993		Willis, I.J., B.Eng.	12 Barclay Mansions, St. Valerie Rd BH2 6PF
1990		Wilson, Mrs A.V.	37 Cowleys Road, Burton BH23 7NB
1985		Wilson, G.H.	15 Mount Pleasant Drive, BH8 9JL
1972	*	Wilson, F.W., F.C.I.S.	9 Pascoe Close, Poole, BH14 0NT
1988		Windsor, Miss A., B.A.,Dip Ed.	83 Southbourne Overcliff Drive, BH6 3NW
1976	L	Winter, Mrs A.R.	9 The Squirrels, 24A The Avenue BH13 6AF
1979	+V	Winter, Miss R.H.D.	23 The Anchorage, 157 Mudeford, BH23 4AG

1948		Wood, Miss E.B., B.Sc.	Flat 1, 3 Southern Road, BH6 3SR
1971	L	Wood, Mrs D.L.	6 Crofton Court, 37 Wellington Road, BH8 8JH
1985		Woodhead, Miss E.T., B.Sc.	7 Compton Lodge, 17 Marlborough Road BH4 8DD
1986		Woodhead, Mrs F.A., B.Sc.	28 Hungerford Road, BH8 6EH
1981		Woods, Mrs J.M.	6 Knole Gardens, BH1 3QY
1993		Woodward, C.	111 Bader Road, Canford Heath, Poole BH17 7PW
1975		Woodward, Mrs. D.	" " " "
1983		Workman, Mrs C.N.	99 Carbery Avenue, BH6 3LP
1990		Zara, Miss J., B.Sc., M.Ed.	Flat 5 Restharrow, Lansdowne Gardens BH1 1QR

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OBITUARIES

It is with deep regret that we have to announce that during the past year the following members have died (the figure in brackets is the year of joining the Society):

Miss M. Brown M.B.E. (1990)

Mrs. I. Dudley (1955)

Mr L. Easterbrook (1974)

Mr L.E. Jordan (1976)

Mrs. K.A. King (1985)

Miss D.M. Lowther B.Sc. (1934)

Miss P.E. Winter M.A. (1979)
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Miss D.M. Lowther B.Sc.

By the death of Miss Dorothy Lowther on 1st September in a Residential Home at Haverfordwest, Pembrokeshire, the Society has lost a lady of great distinction, character and intellect whose presence enlivened every meeting she attended.

Miss Lowther was born and educated in Milford Haven where her father was Headmaster of the Grammar School for 29 years. She gained her B.Sc. in Pure Mathematics at the University of Bangor. After a few years of teaching she moved to Parkstone where her parents were living after retirement.

Her father joined the Society in 1932, was a Member of Council and Chairman of the Historical and Geographical Sections.

Dorothy joined the Society in 1934 but it was after her father's death in 1947 that she began to play an active part in the Society's administration. She served as Assistant Secretary 1953-58, President 1959-60, Deputy Chairman of Council 1962-65, Chairman of Council 1965-66 and until 1987 she was one of the four Trustees. Her Presidential Address entitled "Twentieth Century Genetics" appears in Proceedings 1958-59.

Until she left Parkstone because of ill-health she was a regular attender at Lectures and Council Meetings. She was the Society's most senior and longest serving Vice-President by more than a decade.

In Council and Committee Miss Lowther was forthright in expressing her views and her loyalty to and love for the Society were clearly to be seen. She befriended new members and offered to all the full benefit of her knowledge and experience in the world of science.

Her enthusiastic presence is missed.

G. Teasdill

PRESIDENTIAL ADDRESS

Albert Einstein - Physicist and Philosopher

by Graeme Nash M.A., F.R.A.S.

Delivered before the Society on 30th October 1993

Albert Einstein ranks with Isaac Newton as one of the greatest scientists of the physical universe of all time. As with Newton, his ideas have revolutionised our understanding of physics and astronomy.

He was born on March 14th 1879 in Ulm, Germany, of middle class Jewish parents. Although as a boy he showed no exceptional gifts, very early on he developed a deep interest in physical phenomena and a strong independence of mind. These two characteristics stayed with him all his life. A free spirit, he deeply disliked the regimented, militaristic teaching methods of German schools and became something of a rebel. So averse was he to the prevailing nationalistic mood in Germany that at the age of 16 he renounced his German citizenship. He moved to a school in Switzerland where he found the atmosphere freer and more to his taste.

By then he had decided to devote his life to physics and did so with a single minded intensity. He graduated from the Federal Institute of Technology (ETH) in Zürich in 1900, aged 21, but was unable to get a teaching post at the ETH. However, after becoming a Swiss Citizen, he obtained a job as technical clerk in the federal patent office in Bern in 1901. He remained there for eight years during which time he did some of his greatest scientific work in his spare time. Isolated from the leading physicists of the day, he struck out on his own and in his "annus mirabilis" of 1905, at the age of 26, produced four epoch making papers. To understand their impact, we must consider the state of physics at the end of the 19th century. It was ripe for the revolution that was about to engulf it.

The 19th century marked a resurgence of the atomic theory of matter which had lain dormant since the age of the Greeks. By the end of the century most scientists believed in the existence of atoms and molecules, but there was little experimental evidence.

Einstein had developed a deep interest in statistics as applied to aggregates of bodies and pioneered the mathematics to study such systems. His first paper of 1905 was a statistical analysis of Brownian motion. This is the random motion of particles suspended in fluids and had first been observed by the Scottish botanist Robert Brown in 1827. Einstein showed that the motion was caused by the buffetings the suspended particle received by the unseen atoms or molecules of the fluid. From the observed "random walk" of the particle, Einstein could calculate the size of the atoms. This pioneering work won over many doubters to the reality of atoms.

Einstein's other three papers of 1905 marked a radical departure from the past. The first concerned the photoelectric effect. To sketch in the background to this we must go back to the inability of classical physics to account for the spectrum of radiation emitted from ideal warm bodies - the black body radiation spectrum. Classical theory produced the absurdity of the "ultra-violet catastrophe". However the first breakthrough in understanding was made by Max Planck in 1900. He made the revolutionary and experimentally unjustified assumption that the energy values of the black body were at discrete levels, rather than continuously distributed. With this assumption he was able to derive the correct spectrum of the black body radiation. This discretisation of the energy levels was termed

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quantisation and a new constant of nature - Planck's constant - was introduced to physics. Thus was born the quantum theory.

Einstein adopted and radically extended the new quantum hypothesis to explain the photoelectric effect. A metal surface exposed to light emits electrons only when the light has greater than a certain minimum frequency. Increasing the intensity of the light simply increases the number of emitted electrons but not their individual energy. Only increasing the frequency of the light increases the energy of each emitted electron.

Classical physics could not explain these effects. Einstein assumed that light itself was quantised in energy packets he initially called light quanta and later photons. The energy of each photon was Planck's constant multiplied by its frequency. By this hypothesis he could explain completely the photoelectric effect. It was for this work that he was eventually awarded the 1921 Nobel Prize for physics. He had shown that light has wave/particle duality. That is, light exhibits characteristics either of waves or particles, depending on the nature of the observation made or experiment performed.

His third paper of 1905 was an equally profound challenge to classical physics. The foundations of the classical laws of nature had been laid down by Newton in the 17th century. His three laws of motion and the law of universal gravitation brilliantly explained the motions of the bodies of the solar system. Astronomical observations since Newton's time further confirmed the laws. For example, Sir William Herschel's report in the early 19th century of binary star systems showed that gravity was indeed universal and not just confined to the solar system. The greatest triumph of classical theory was the detection of the new planet Neptune in 1846 from its gravitational effects on Uranus.

In formulating his laws, Newton had assumed the existence of absolute space and absolute time. With these assumptions, his laws conform to what is known as Galilean relativity and obey Galilean invariance. That is, they take the same form in all inertial frames of reference (frames of reference moving at constant velocity relative to each other).

During the 18th and 19th centuries, the investigation of electricity and magnetism had proceeded apace, culminating in James Clerk Maxwell's elegant theoretical work of the 1860's. Maxwell showed that electricity and magnetism were different aspects of a single phenomenon - electromagnetism - and proved that light was an electromagnetic wave. His equations mark the first unified field theory.

However, these equations did not show invariance when subjected to Galilean relativity in transformations between different inertial systems. Specifically, the velocity of light was not the same in different inertial frames. There is a special frame of reference in which Maxwell's equations take their simplest form and define the rest frame of the supposed wave carrier, called "ether". A famous experiment was performed in 1887 by two US physicists, Michelson and Morley, to compare the speed of light in different directions at different times of the year. They expected variations because the earth could not always be stationary with respect to the ether. However, they obtained a null result - the speed of light was always the same. This baffled physicists and prompted a few to attempt an explanation. For example, Fitzgerald supposed a contraction of physical lengths in the direction of motion relative to the ether and Lorentz constructed an elaborate theory of the electron (newly discovered in 1897) to give physical explanation to such a contraction.

In his third paper of 1905 however, Einstein swept all such reasoning aside. Scientifically isolated as he was, he seems to have been unaware of the Michelson

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- Morley result at that time. Rather he was guided not by experiment but by his deep belief in the symmetry of nature. He was convinced that Maxwell's equations, as well as the laws of mechanics, should take the same form in all inertial frames. That is, they should be invariant under inertial transformations. This profound assumption meant that not only must the speed of light "c" be a universal constant in all inertial frames but also that Galilean relativity could not be true. There is no absolute space nor absolute time but each inertial frame has its own coordinates of space and time. In two different inertial frames, time would appear to run at a retarded rate in one frame as seen from the other. Lengths in the direction of relative motion would also appear contracted. These two effects were subsequently summarised in two well known limericks:

There was a young lady named Bright
Who travelled much faster than light.
She took off one day
In a relative way
And came back the previous night.

And:

There was a young fellow named Fisk
Whose fencing was exceedingly brisk.
So fast was his action
The Fitzgerald contraction
Reduced his rapier to a disc.

Only a certain combination of space and time coordinates would be invariant so that space and time would no longer be regarded as unrelated separate entities. Four dimensional space-time was born.

The new type of transformation, called Lorentzian, and the new Lorentzian invariance, ensured that the laws of electromagnetism as well as those of mechanics, took the same form in all inertial frames. This is Einstein's special theory of relativity. The constancy of the speed of light of course explains the Michelson - Morley result and also banishes the existence of ether. It also follows from the special theory that for two different inertial frames moving relative to each other the inertial mass of an object in one frame would appear greater as seen from the other frame. As the relative speed approaches that of light, the observed mass increases without limit. This means that the speed of light is an absolute barrier to the motion of all ponderable matter.

Special relativity meant that simultaneity also ceased to be absolute. Spatially separated events deemed simultaneous in one inertial frame were no longer so in another inertial frame moving with respect to the first. However causality was preserved. That is, cause always preceded effect in all inertial frames so that this basic principle of classical physics was preserved. It was ensured by the upper speed limit imposed by the speed of light. The young lady named Bright could not, in fact, have returned the previous night.

Einstein's fourth and final paper in 1905 considered the implications of the special theory of relativity. In a brilliant "thought experiment", he showed that energy E and mass m are equivalent via the famous equation $E = mc^2$. This result is completely general. It applies to all forms of energy and matter.

The publication of the four epoch making papers of 1905 gradually brought Einstein's name to the attention of the European community of physicists. In 1909 he was able to resign from the patent office and take up a series of academic posts in Zurich and Prague, culminating in the directorship of the newly established Kaiser Wilhelm Institute for Physics in Berlin early in 1914. On accepting this post, Einstein reluctantly resumed German citizenship.

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But long before that, Einstein had already embarked on his greatest venture. He realised that the special theory of relativity was restricted to inertial frames of reference only. Accelerations had not been incorporated and gravity had been ignored. In the real universe bodies experience accelerations and gravity is all pervasive, as indeed Newton had declared.

So after 1905 Einstein laboured to extend special relativity to include accelerations and gravitational fields. In 1907 he enunciated the principle of equivalence. This was based on Galileo's observation that all bodies fall equally fast. Put another way, there is no difference between a body's inertial mass and its passive gravitational mass. In Newtonian physics this was an interesting though unexplained coincidence. Einstein sought to make it a basic principle of his new relativity. He realised that the principle of equivalence implied that over a sufficiently small region of space and for sufficiently short intervals of time, all the laws of physics take identical forms in an accelerating frame of reference compared with an equivalent gravitational field. Since the laws of physics include Maxwell's laws of electromagnetism, the principle of equivalence implied that light paths should be bent by the gravitational field of a massive object.

However, the principle of equivalence alone was not enough because the new theory had to apply over extended regions of space and for long periods of time as well. The expansion of the theory to account for these generalisations caused Einstein herculean efforts over the following years. He realised that he would have to abandon the assumptions of Euclidean geometry and master the complex mathematics of the generalised non-Euclidean geometry developed by Riemann and others in the 19th century. By this means he was able to express all the laws of physics in completely generalised coordinates. This meant that the laws took the same form in all frames of reference, inertial or accelerated, with or without gravitational fields.

The general theory of relativity so created was finally published in 1916. The theory explains gravity as a curvature of four dimensional space-time. The distribution of all sources of mass or energy in the universe defines the geometry of space-time (Einstein hoped that this was an expression of Mach's principle). All light rays and free bodies move along geodysics in this geometry (equivalent to straight lines in the Euclidean geometry of special relativity). Locally, a massive object such as the sun distorts the local space-time geometry causing objects like the Earth to fall freely in the well known planetary orbits. We can summarise general relativity in the words of Professor John Wheeler: "Space tells matter how to move and matter tells space how to curve".

Finally, the theory postulates the existence of gravitational waves. These can be thought of as ripples in the fabric of space which propagate at the speed of light. Gravitational waves carry energy away from accelerating masses, although the power level is very small.

Thus the general theory of relativity removes the geometry of the real universe from the domain of pure mathematics into the domain of physics. It is a theory of gravity with a radically different philosophy to Newton's.However, for weak gravitational fields (compared to that near a black hole) and for low speeds (compared to light), the two theories give nearly identical results: nearly but not exactly identical. The first test of the theory was performed by Einstein himself to compute the orbit of the planet Mercury. By the mid 19th century careful observations had shown a slight discrepancy in the motion of Mercury compared with Newtonian predictions. There appeared an extra observed precession in the orbit of 43 arc seconds per century. We can imagine Einstein's joy when he found that his new theory accounted precisely for this discrepancy. He tells us that he was so excited that he could not sleep for the following three days.

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The theory also predicted time dilation in a strong gravitational field compared to time in a weaker field. This effect was very difficult to test at that time. However, the theory also predicted the bending of light rays passing near a massive object. The bending effect was larger than that predicted by the principle of equivalence alone because space itself was also warped locally by the massive object. This extra contribution meant that the total bending was doubled.

The bending of light could be tested by observing stars near the sun. They should appear slightly displaced compared to their usual positions when the sun was not near. Such stars could be seen when close to the sun only during a total solar eclipse with the sun's glare blotted out. The crucial observations were first done just after the First World War by two parties of British astronomers who observed a total solar eclipse in May 1919. The expeditions were organised by the British astronomer Sir Arthur Eddington, one of the few people who understood general relativity at that time.

The eclipse measurements agreed with Einstein's prediction of a bending at the sun's limb of 1.75 arc seconds. This was twice the Newtonian prediction, or that of the principle of equivalence alone.

The publicity of this result to a world devastated and weary after the World War made Einstein a world famous figure. He was acclaimed wherever he went. He bore all the publicity and adulation with patient good humour. At the same time, the ideas embodied in both theories of relativity were widely broadcast, to the general bewilderment of most people. The confusion caused by these new ideas of space-time and gravity were captured by a poem written at the time by a US physicist called Professor Williams. It took the form of a witty parody of Lewis Carroll's "The Walrus and the Carpenter" and was entitled "The Einstein and the Eddington". Part of it goes like this:

"The time has come", said Eddington,
"To talk of many things;
Of cubes and clocks and meter-sticks,
And why a pendulum swings,
And how far space is out of plumb,
And whether time has wings".

"You hold that time is badly warped,
That even light is bent;
I think I get the idea there,
If this is what you meant;
The mail the postman brings today,
Tomorrow will be sent".

"The shortest line", Einstein replied,
"Is not the one that's straight;
It curves around upon itself,
Much like a figure eight,
And if you go too rapidly,
You will arrive too late".

"But Easter Day is Christmas time,
And far away is near,
And two and two is more than four
And over there is here".
"You may be right", said Eddington,
"It seems a trifle queer".

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Newton had inspired Pope's admiring couplet:

Nature and Nature's Laws lay hid in Night:
God said, "Let Newton be!" and all was Light.

Whereas many now agreed with Squire's additional couplet:

It did not last: the Devil howling "Ho,
Let Einstein be", restored the status quo.

In 1916, after completing his work on general relativity, Einstein had once again turned his attention to photons. He considered the interaction of photons with atoms as a mixture of gas particles. His deep understanding of statistical thermodynamics enabled him to postulate that in such circumstances excited energy states of atoms could be created which would be quasi - stable. The atoms would be returned to their ground state energy by interaction with photons having the precise energy (and hence frequency) equal to the excess energy of the excited atomic state. Thus the induced fall to ground state would emit another photon of exactly the same energy as the photon which caused the fall. This principle is the basis of microwave or light amplification by the stimulated emission of radiation. It was some 40 years later that the first practical MASERs and LASERs were produced. Einstein did this work at a time when most physicists were still struggling to come to terms with his concept of the dual wave/particle nature of light.

Although he did further original work on photon physics in the 1920's, after 1916 Einstein almost exclusively pursued his self appointed task of developing a unified field theory. This was to integrate gravitation and electromagnetism into a single theoretical framework. He stubbornly, but unsuccessfully, persevered with this task for the rest of his life. He fell out of sympathy with the exciting developments in quantum mechanics in the 1920's and regarded this theory as incomplete. He could not accept the indeterminacy implicit in the theory. He also lost touch with the development of nuclear physics in the 1930's. This meant that he did not include nuclear forces in his integration scheme.

He missed, as well, a golden opportunity in the new science of cosmology. Back in 1917 when Einstein applied the general theory of relativity to the universe as a whole, he was disturbed to find that his equations predicted a non static universe, contrary to beliefs then current. In order to make the equations yield a static universe, he introduced a "fudge factor" called the cosmological constant into them. However, by 1929, Edwin Hubble, using the 100 inch telescope at Mount Wilson in California, had discovered the expansion of the universe. The cosmological constant was unnecessary because the universe was indeed non static. Einstein's rare failure of nerve had prevented him from predicting the expansion of the universe theoretically. He commented that this was "the biggest blunder of my life". Ironically in recent years the cosmological constant has reappeared in the mathematics of general relativity when applied to the inflationary models of the very early universe.

Einstein was deeply fond of music and was a competent violinist. Another of his great loves was sailing, particularly as this enabled him to go out in his boat and find a quiet undisturbed spot. There he could drop anchor and devote his thoughts completely to the problems of physics.

All who met Einstein were impressed by his warmth and humanity. He remained completely indifferent to, and unspoiled by, his fame. His attitude to the antics of his fellow men was one of amused detachment, tempered by his passionate espousal of various causes. Almost alone during the First World War he stuck to his pacifist beliefs. Reluctantly he stayed in Berlin after the War to support

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the democratic Weimar Republic. However, when Hitler came to power in Germany in 1933, Einstein abruptly dropped his pacifism and urged the democratic nations to prepare for war. The Nazis soon forced him out of Germany and he never returned. He moved to the USA, taking a post at the newly founded Institute of Advanced Study in Princeton, New Jersey. He stayed there for the rest of his life, becoming an American citizen in 1940.

Despite his isolation from mainstream physics during this time, he was alerted to the potential danger of atom bomb development in Germany at the end of the 1930's. His famous letter to President Roosevelt warning of the danger was an important factor in starting the Manhattan Project which produced the atomic bombs. He bitterly regretted this later after Hiroshima and Nagasaki.

Einstein was married twice. His first wife was Mileva Maric, a Hungarian who had been a fellow student at the ETH. They married in 1903 and had two sons, Hans-Albert and Eduard. But the marriage was not a success and they parted before the First World War. After their divorce Einstein settled his Nobel Prize money on Mileva and the children.

Einstein's second marriage was to his cousin Elsa, who had also been divorced. She had two daughters from her first marriage. They married in 1919 and Elsa devoted herself to Einstein for the rest of her life. She died in 1936.

Einstein was religious in a non orthodox way. He had no belief in a personal God but rather in one manifested in the profound beauty, symmetry and harmony of the universe and nature's laws. Many of his famous sayings reflect his beliefs, such as "Science without religion is lame, religion without science is blind", and "The most incomprehensible thing about the universe is that it is comprehensible". His deep suspicion of the later developments of the quantum theory is shown by his statement that "God does not play dice with the universe".

After the First World War Einstein supported Zionism, though not uncritically. This eventually led to him being offered the Presidency of Israel in 1952 which characteristically he declined.

He died on April 18th 1955 at the age of 76 still working on his unified field theory. This remains the holy grail of theoretical physicists.

Einstein's scientific achievements stand secure. His concept of light as photons as well as wave motion was one of the great pioneering ideas in the development of the quantum theory. The special theory of relativity was rapidly incorporated into mainstream physics and its predictions have been confirmed with increasing accuracy by every experiment performed to date.

The predictions of the general theory of relativity lie chiefly in the realm of astronomy and have been more difficult to test. However, in the last 30 years or so, a series of mainly astronomical observations of increasing rigour has shown the theory to pass every test successfully. Today it is the indispensable mathematical equipment of the cosmologist.

I hope this brief address has demonstrated the originality and breadth of Einstein's contribution to the development of physics this century. Although he was a pioneer of the quantum theory, he shared with his hero Newton the belief in the causality of nature. In that sense he remained a classicist, which divorced him from the later developments of the quantum theory. However, we must remember that the last word has yet to be written on the theory. Who knows that, in this field, we may again find relevant the views of the 20th century's greatest physicist.

FROM THE CHAIRMAN OF COUNCIL

Another year has passed successfully for the Society and I would like to thank the Deputy Chairman, Mr W.D. Watson, and members of Council for all their support.

Several changes have taken place during the year. The Assistant Treasurer, Mrs I. Towndrow, has retired after holding the post for nearly twenty years. We are all very grateful to her and wish her a happy retirement. A warm welcome to Mrs S. Geddes who has volunteered to take over the position.

Another member who is retiring from office as Dispatch Secretary is Mrs M. Saunders. For many years she served as Minute Secretary to Council, Programme Secretary and finally Dispatch Secretary. We all wish her a happy retirement and thank her for her work.

The Rev. F.R. King resigned as Chairman of the Physics and Chemistry Section and we thank him for his work. Happily Dr. D. J. Godfrey has offered to take over the Section and I am most grateful to him and wish him a happy tenure.

One of the Society's long-standing members, Miss Dorothy Lowther, passed away on September 1st. She became a member in 1934 and was President for the year 1959/60. She took a keen interest in the affairs of the Society until she moved to Wales a few years ago.

Two outstanding events took place this year - Mr & Mrs George Parkinson and Mr & Mrs Harry Wheeler both celebrated their Diamond weddings. Congratulations from us all and we wish you many more years of happiness together.

Mr M.P. Bentley, the Deputy Secretary, is another Officer I would like to thank. He takes the minutes at the Finance and General Purposes Committee and Council Meetings and writes the Annual Report. His engineering expertise has proved to be invaluable on many occasions.

In closing I would like to thank our hard-working Honorary Secretary, Mr F.R. Watson, for all the time he spends on the affairs of the Society.

M. Winsome S. Davis

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THE 90TH REPORT OF THE COUNCIL FOR THE YEAR ENDED 30TH SEPTEMBER, 1993

INTRODUCTION: A sensible balance of activities has been maintained over the past year, and one which has the approval of members, or so it would seem. Lectures and field meetings have been diverse and reflect the wide range of interests of both speakers and members, along with a leavening of successful social events. Both F & GP and Council have been occupied with many varied matters, including the impacts of the Data Protection Act and Charities Act of 1992, security of the building and property, the duties and obligations of Council members and Trustees, computer operations etc.

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ADMINISTRATION: The Honorary Secretary, Mr F.R. Watson, has completed his 13th year as Secretary, and the Society owes much to his continuing service and careful attention to so many matters affecting the Society's well-being. Miss M.W.S. Davis continues as Chairman of Council and as Chairman of Chairmen, with the capable efficiency and discrete guidance that she gives to both positions. Mr W.D. Watson was elected Deputy Chairman at the 1992 AGM. The quarterly Newsletter with Mrs H.E. Hall as Editor now comes in a pleasing format, thanks to an anonymous donor bearing the cost of printing. Copies of Council minutes are now lodged in the Library for the benefit of members. Miss Ruth Winter was unable to continue throughout the year as Assistant Secretary but was asked to remain on F & GP, and Mrs Whieldon has taken over much of the previous work-load. The DTNC remains our tenants, and additionally continues to help with lecturers for our programmes. Security has been reviewed and a scheme is under consideration to give greater protection to the premises and its contents. The need for added storage space requires early attention, both for financial and other records, and for the Library, Museum etc.

FINANCE: Mr T.P. Whieldon as Honorary Treasurer continues to manage our financial affairs with distinction, and the Society is indebted to the unfailing care and attention he gives to his duties as Honorary Treasurer. He has been ably assisted over the years by Mrs Iris Towndrow who has retired as Assistant Treasurer after eighteen years in the position, and our thanks go to her for her dedication and support in undertaking an exacting task over this long period. Mrs Sheila Geddes is welcomed as the incoming Assistant Treasurer. In the year under review, receipts from all sources exceeded our payments, even including the purchase and installation of the computer system, resulting, for ordinary items, in a surplus of £3555 over the year. Interest payments on our main deposit accounts were higher than anticipated, (not, of course, a recurring feature), while among other items of expenditure, that on meetings more than doubled, reflecting the need for Section Chairmen to make more payments, and at a higher level where necessary, to visiting speakers. Investments and reserves comprise (a) fixed interest and long-term income and/or growth holdings and (b) money accounts, balanced in the ratio of/about 45/55%. Another review will be undertaken in the coming year to project receipts and payments for the next four-year period. Considerable sums continue to be expended upon the maintenance of, and improvements to, the house and garden in accordance with a planned programme.

MEETINGS: Joint meetings, along with those to which our members are invited, continue satisfactorily with the RHS, the Orchid Society, the Historical Society, DTNC etc., and an extension of this practice would be welcomed. Lecture attendances have generally been good. The report of an expert is awaited on means to improve the quality of the public address system in the Lecture Hall. A marked improvement in the standard of pictures has followed the introduction of the new slide projector. The pattern of Memorial Lectures has now become well established and these are duly appreciated. The informal gatherings on Tuesday mornings gain increasing numbers of members, who provide help in various ways while enjoying the more social nature that these meetings afford.

MEMBERSHIP: Membership has remained relatively stable at about the 450 mark. There were some losses earlier in the year, possibly an effect of the continuing recession, but there was a steady influx of applications in subsequent months, boosted by a successful Open Day. There is a renewed demand for evening meetings, and this subject is currently under review. Through deaths, we have lost some members with long and distinguished service.

PERSONALIA: Mrs Vera Copp ends her term of office as President, having filled the office with distinction and energy. She has given support and interest in virtually every aspect of the Society's activities, along with a major role in launching and fostering the various facets of the newly-acquired computer system.

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Among Heads of Sections, the Rev F.W. King resigned as Head of Physics & Chemistry, and the position was filled by Dr. D.J. Godfrey. Mr J. Andrews took over as Head of Archaeology & History. In the Library, Mrs H.M. Dickinson succeeded Miss Phyllis Winter, who is sadly missed.

PREMISES & EQUIPMENT: A further programme of redecoration has been undertaken with good effect, and the year ends with work proceeding in the Museum where removal and replacement of the many exhibits, cabinets etc. have been undertaken by a small band of helpers with great expertise. The old Slide Room has been converted and redecorated for the computer installation to good effect, the slides now being held in a store room at the top of the stairs. Mr W.H. Arnold as Chairman of the House Committee takes good care of our property and deals competently with the many demands for repairs and improvements. Miss Blower and her small but active group of helpers continue their admirable work on the garden, where the display over recent months remains a source of considerable pleasure to members.

COMPUTER: A major step forward for the Society was taken a year ago when Council approved the acquisition of a computer system for handling the increasing requirements of the Society's records. The computer has a large memory capacity to cater for the foreseeable future, anticipating storage for a hundred thousand records of museum items, together with membership records, field meeting observations, subscription records, cataloguing the contents of the libraries and of the slide collection, listing of inventories for insurance purposes etc. and, not least, book-keeping and accounts. A nucleus of willing workers has developed with increasing expertise, and much useful experience has been gained. Care has been taken to ensure that the requirements of the Data Protection Act are fully observed. A progress report is given in the Appendix.

AND FINALLY: The many and varied activities of the Society reflect largely the result of devoted service given by a range of members. However more support is always welcomed and indeed would be particularly acceptable to give a measure of assistance to the officers and to those in equally responsible positions.

Our thanks go once again to our housekeeper, Mrs Garlinge, and also to her husband, who continue to serve us well and whose care in ensuring the success of outside lettings contribute to a useful source of income for the Society.

F.R. Watson & M.P. Bentley

APPENDIX: COMPUTER PROGRESS REPORT FOR THE YEAR:

Geology: The Chadwick collection amounting to 394 paleobotany entries. Invertebrates 1,114 entries; vertebrates 890 entries.

Ornithology: The Batley Egg Collection representing over 2,000 eggs has been recorded.

Garden/horticulture: 75 plants have been recorded.

Accession register: 1906 to 1925 representing over 200 separate collections.

Slides: 150 slides have been recorded.

Membership records: 173 recorded entries.

Newsletters: Now being produced regularly on the word processor.

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University Degrees and other qualifications are inserted only at the first mention of names in the following reports.

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TEA AND ENTERTAINMENT COMMITTEE

It is pleasing to report that with the faithful support of Committee members a profit of £1202 (£60 up on last year) was made from the afternoon teas and parties. We look forward to progressing generally in the coming year.

Pamela Hood
Chairman

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ARCHAEOLOGY AND HISTORY

LECTURES 1992

October	14	Recent Archaeology	J. Day
October	28	Excavation of the Foundry Site in Poole	D. Watkins
November	14	St. Petersburg or Leningrad	Miss M.W.S. Davis

1993

January	30	Crusader Fortifications	Prof. J. Riley-Smith
March	6	Bruges: Part II City of Commerce & Art	Madame J. de Fonseca
March	24	Archaeology & History of Romsey	B. Sherratt
April	17	Further Studies of Heywood Sumner	G. Le Pard B.Sc., F.R.E.S.
May	19	Archaeology & History of Bere Regis	J. Day
June	19	Archaeology of the Andes	M. Green
July	24	Recent Discoveries in Southampton	A. Russel Ph.D., M.I.F.A.
August	21	Roman and other Structures in the South East	W.J. Whitsed F.R.S.A.
September	8	Archaeology Bypassed	Dr. A. Fitzpatrick

FIELD MEETINGS 1992

November	12	Witchampton and Knowlton	Mrs. T. Hall J. Andrews
December	8	Hengistbury Head Updated	H.A. Westrap J. Andrews

1993

January	15	Poole - Excavations in the Seventies	H.A. Westrap
February	12	Knowle Hill and Corfe	J. Andrews
March	12	Pitts Wood	J. Andrews
June	21	Source of River Bourne and Canford Heath Barrows	H.A. Westrap
August	12	Forts - Brockhurst, Portchester & Widley	J. Andrews
September	3	Melbury Beacon	J. Andrews

In May due to pressure of other Society work Tony Westrap asked me to take over the Chair of this Section. Already responsible for the monthly Field Meetings I, in effect, added Lectures to my Duties. Tony will continue to be involved, particularly with a Study Group starting soon and the occasional local Field Meeting.

The first two Lectures of the Programme were targeted very much locally but in

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November Miss Davis whisked us away to Russia to see the splendours of the pre-Communist era.

For the joint Historical Society Lecture in January, Prof. Riley-Smith gave a fine talk to a full house on Crusader Fortifications. But on a quite different tack in April, member, Gordon Le Pard, gave a follow-up talk on Heywood Sumner, one of our illustrious Past Presidents. There is material yet for a third talk, let us hope it will not be long forthcoming.

In May, John Day, Chairman of Wimborne based East Dorset Antiquarian Society, gave us a very well illustrated talk on Bere Regis. This was followed in June by our own Martin Green with a delightful talk Archaeology of the Andes, mainly centred on Peru, with some outstanding photography.

In July, Dr. Andrew Russel of Southampton Archaeological Services gave us a very professional talk bringing us up to date on "digs" in the City. Bill Whitsed took us into South East England in August, mainly Roman Sites in Kent, but I recall a remarkable Church near Canterbury.

Archaeology Bypassed, the discoveries made at Westhampnett, Chichester as a result of Site Assessment by Wessex Archaeology was the subject of Dr. Andrew Fitzpatrick's talk in September. Some good Fieldwork here and Dr. Fitzpatrick was the man on the site.

We had an active and varied programme of Field Meetings in 1992-3. Although there was an unfortunate spell in the Spring when,because of pressure on the Programme,we were unable to obtain dates.

Our Field Meetings usually entail a walk at a moderate pace of between 4 and 6 miles. We are always ready to pause to look at a bird or a flower or admire the view.

The Witchampton Walk-about in November led by Mrs. Teresa Hall gave us a better understanding of this attractive and historical village. On a truly golden autumnal day we finished at Knowlton, with its Henge, ruined Church and abandoned village.

Pitts Wood the "target" of the March Field Trip proved very rewarding. We were joined by Martin Green, an Ornithologist friend, and with one of our ex-R.A.F. Pilot members we were well equipped to explore the wartime Ashley Walk Bombing Range, a dubious tumulus and two Romano-British Pottery Sites. We kept sighting Dartford Warblers or was it the same one?

In contrast to previous Iron-Age Hill Fort visits, in August we studied the development of the Fort when we visited the Portsmouth area. We looked at the Palmerston Forts of Brockhurst and Widley, part of the chain surrounding Portsmouth and Gosport to counter the threat from France in the late 19th Century, and Portchester Castle the Roman Fort with its Norman addition. They all showed extensive changes in the defensive enclosure in response to the development of the offensive weapon from Sling Shots and Arrows to the Rifled Gun.

A month later we were looking at Bronze Age Boundary Bank and Ditches (or were they Defences?) on the Downs overlooking Compton Abbas.

And so we concluded our Programme Year. With thanks to all who made it possible and worthwhile, the Speakers, Leaders and you who looked and listened: we plan and look forward to a further year of Archaeology & History.

Jack Andrews
Chairman

ASTRONOMY

LECTURES 1992

November 7	A study of the Milky Way	Bob Mizon B.A., F.R.A.S.
December 19	Some Aspects of 19th Century Astronomy	Graeme Nash M.A., F.R.A.S.

1993

January 16	The Motion of the Earth	Graeme Nash
February 20	Our Star, the Sun	Graeme Nash
September 4	The Moon and the Exploration of its Surface Features	Keith Abineri, B.Sc., F.R.A.S.

In the first lecture of the season, Bob Mizon conducted a survey of the Milky Way, the faint band of light which spans the clear night sky. The Milky Way in fact completely encircles the Earth and is the visible manifestation of our own galaxy.

The galaxy is a system of myriads of stars and bright and dark clouds of gas and dust. With a series of beautiful photographs, taken by himself, Bob illustrated all these different aspects of the Milky Way. He also pointed out the changing nature of the Milky Way through the seasons. The richest parts are visible in the summer night skies when we look towards the galactic centre in the constellation of Sagittarius.

The next three lectures were given by the Section Chairman.

In the first of these, he talked about the development of Astronomy in the nineteenth century.

It was a period of enormous progress and only a few aspects of this could be highlighted. For example, the development of optics and precision instrumentation enabled the first stellar distances to be measured directly. Together with the use of the spectroscope, the accumulation of astrophysical data at the end of the century was ripe for the great synthesis of Hertzsprung and Russell.

Photography, developed in the early 19th century, was soon applied to Astronomy, and by the end of it had virtually superseded observations made by the human eye.

The 19th century was the heyday of great refracting telescopes culminating in the great 40" at Yerkes, still the world's largest.

On the theoretical side, the discovery of the planet Neptune in 1846 by mathematical means marked the apotheosis of Newtonian science. But storm clouds were gathering! The unexplained extra precession of Mercury's orbit, the puzzling "null" result of the Michelson-Morley experiment of 1887 and the lack of solution of Olber's Paradox (1826) all pointed to the breakdown of classical physics which was to occur in the 20th century.

The next lecture discussed "The Motion of the Earth". To us, the Earth seems to be an immobile platform, and indeed this has been assumed through most of human history.

However, we now know that the Earth is subject to a variety of motions. These include: rotation on its axis (the "day"); revolution about the sun (the "year"); motion with the sun about the centre of the Milky Way (the galactic "year", about 220 million earth years!).

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Then the Milky Way itself is in a complex orbit about our local group of galaxies, and this local group is "drifting" at several hundred miles per second relative to the microwave background. Finally, it is even possible to address the question "Is the Universe rotating?" The answer to that seems to be "not much, if at all".

The third lecture by the Chairman was about the Sun. For us, the source and sustenance of all life, the sun is an average star, a thermonuclear fusion reactor about half way through its 10,000 million year lifetime.

Two modern aspects of solar research were highlighted. Firstly, the experiments performed since the 1960's to detect solar neutrinos, ghostly particles thought to be produced in the core of the sun from the nuclear reactions. The neutrinos come straight out, so that their detection gives direct evidence of the core conditions. However, it seems that the neutrino flux detected on the Earth is about three times too small. Could this mean that the conditions in the sun's core are not as we think? Or does it mean that the nature of the neutrinos themselves needs revision?

The second aspect of solar studies also dates from the 1960's. This is solar seismology. For the sun suffers from continual "quakes", visible as surface motion. Careful measurements of these surface waves gives us valuable information about the deep interior of the sun.

The final lecture was given by Keith Abineri and was entitled "The Moon and the Exploration of its Surface Features". Keith is a Chemist by profession but has made a close study of the moon for many years. He has participated in the projects which were designed to produce detailed lunar maps which NASA used to select the landing sites for the Apollo missions of the 1960's and 1970's. His involvement gave him access to microfilms of the lunar surface taken by such pre-Apollo NASA missions as Surveyor and Orbiter. Keith now uses these high resolution photographs for detailed research on various lunar features.

In his lecture Keith showed some 60 slides of a variety of lunar features. He stressed the selenological complexity of the lunar surface and its active history over thousands of millions of years. Even today the moon is far from being a dead world and provides a fascinating study for the selenologist and solar system historian.

Graeme Nash
Chairman

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BOTANY

LECTURES 1992

October	31	Orchid Conservation	Mrs. J. Stewart
November	10	Mr. J. Elgood showed us his ancient Botany book written by Nehemiah Grew	
November	18	A Fungal Miscellany	R. Collings
December	2	Flowers of South-Western Australia Part 2	Dr. D. Godfrey

1993

January	27	Conservation of Wild Flowers in Dorset	A. Bates
February	13	The Flowers of Fontmell Down	Mrs. A. Halahan
March	22	Lichens and Fungi	Miss J. Fildes
April	3	Brownsea Island Nature Reserve	K. Cook

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FIELD MEETINGS 1992

October	15	Fungus Foray in Gritnam Wood	R. Collings

1993

April	6	Durlston Head	Miss S. Mackintosh
April	23	Tollard Royal area	Mrs. M. Saunders
May	7	Winspit	Mrs. M. Saunders & Miss S. Mackintosh
May	18	Upton Park	Mrs. M. Evelyn
June	18	Fontmell Down	Mrs. A. Halahan
June	29	Martin Down	Miss S. Mackintosh
July	4	Porton Down	Miss S. Mackintosh & Volunteers at Porton Down
July	19	Burton Common and Mudeford Wood Reserve	Mrs. M. Saunders
August	5	Vernditch	Miss S. Mackintosh
August	9	Studland Churchyard	Miss J. Fildes
August	26	Alder Hills Reserve	Mrs. M. Evelyn
September	7	Broadley Inclosure	Mrs. M. Saunders & Miss S. Mackintosh
September	24	Pig Bush	Miss S. Mackintosh

The first Botany field trip of the Society's year was on 15th October when Mr Ray Collings led a fungus foray in Gritnam Wood near Bank.

Our lecture season was begun, on 31st October, by Mrs. Joyce Stewart, Sainsbury Fellow at Kew, whose subject was Orchid Conservation with breathtakingly beautiful slides.

On 10th November Mr John Elgood brought, for us to see, a Botany book by Nehemiah Grew (1628-1711), an Englishman who had attended Cambridge University and who was a precursor of Linnaeus. The preface was written by Christopher Wren. This book has been given to Cambridge University.

In November Mr R. Collings entertained us with his Fungal Miscellany, and in December Dr. David Godfrey's lovely slides of a second collection of Flowers of South-Western Australia warmed us into forgetting the Bournemouth winter.

In January, Mr Tony Bates, a member of the D.T.N.C., delighted us with his expert slides and humour as he spoke about the Conservation of Wild Flowers in Dorset.

A more specific area of Dorset was covered by Mrs. Ann Halahan, a member of the Fontmell Down Management Committee, when she spoke to us in February and showed us slides of that place. Later, in June, she led us on a field trip there, where in places, we had difficulty in avoiding stepping on orchids of five species.

In March, another D.T.N.C. member, Miss Joy Fildes, brought us examples of lichens and explained their method of growth in a very clear way with the help of slides and diagrams. Her enthusiasm continued unabated in August when she showed us more examples on Studland Church wall and gravestones: her patience was inexhaustible as she pointed out their minute details of structure and repeatedly spelled out their long and difficult names.

Our first Field trip of 1993 was to Durlston Head on 6th April when we enjoyed sunny weather but not many flowers. Our list, culled on 23rd April in the Tollard Royal area in rain, was a little longer and by 7th May, at Winspit, we had a better count, of 40 species, including Early Spider Orchid (Oprys sphegodes), and again good weather.

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On 18th May in Upton Park, and on 26th August in Alder Hills Reserve, Mrs. M. Evelyn showed us that we need not go far to find places of Natural Historical interest. We were near home again on 4th June in Christchurch Water Meadows where we found Marsh Cinquefoil (Potentilla palustris) and Southern Marsh Orchid (Dactyllarhiza praetermissa).

We were disappointed on 26th June on Martin Down to see few blue butterflies and only one Dark Green Fritillary though the weather was sunny and our list of flowers was long and included some Bee Orchids (Oprys apifera). However, on Porton Down on 4th July the Dark Green Fritillaries were numerous and looked like bits of flame. Some of the flowers of note which we saw were Deadly Nightshade (Atropa bella-donna), Cypress Spurge (Euphorbia cyparissias), Yellow Bird's Nest (Monotropa hypopitys), Woolly Thistle (Circium eriophorum) and Meadow Clary (Salvia pratensis).

Mrs. Saunders led us on 19th July on Burton Common and Mudeford Wood Reserve, two more places close to home; and on 7th September further afield to Broadley Inclosure, a place new to many of us.

Our final sortie of the season was to Pig Bush. This year the Marsh Gentians (Gentiana pneumanthe) were far less numerous and were well hidden between heather clumps. Royal Fern (Osmunda regalis) was again admired, as in previous years, and Round leaved Sundew (Drosera rotundifolia) and Lesser Skullcap (Scutellaria minor) were eventually found though not Coral Necklace (Illecebrum verticillatum).

I thank our projectionist, Mr G.H. Wilson, and those who led trips, especially Mrs. Molly Saunders who again recorded our finds.

Long overdue thanks are due to Mrs.S. Thomas who has typed out our Botany lists for several years - thank you, Stella.

Miss S.M. Mackintosh
Chairman

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GEOGRAPHY

LECTURES 1992

October	21	Nigeria	J. Elgood M.A.
November	4	Conservation on Ministry of Defence Land	Col. J.H. Baker
November	21	Legacy of the Glaciers	Miss J. Watford M.A.

1993

January	20	Southern Chile & the Paine National Park	Mrs. A. Leonard
February	24	Favourite Trails in North-West America	Mrs. J. Gray B.A.
March	20	An Architect's view of Eastern Europe	P.A. Down M.A., F.R.I.B.A.
April	24	A Journey down the Moors River	Dr. L. Haskins
May	12	Around Mont Blanc	Dr. D.J. Godfrey
June	9	The Human Origins of our Landscape (aspects of historical landscapes)	G. Le Pard
July	10	The Rother Valley	G. Sweetman
August	4	Salt Lake City to San Francisco	Miss J. White M.A.
September	15	The Scenery and Landscape of Crete	Miss M.W.S. Davis

FIELD MEETINGS 1992

October	13	Bulbarrow and Green Hill Reserve	Miss M.W.S. Davis Mrs. M. Saunders

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1993

January	26	Morning walk to Talbot Heath, Pugs Hole & Coy Pond	Miss M.W.S. Davis Mrs. M. Saunders
February	11	Morning walk to Ramsdown Hill	Mrs. M. Saunders
March	25	Holt Heath and Daffodil Copse	Mrs. M.S. Lund Mrs. M. Saunders
April	16	Walk towards Corfe Castle	Miss M.W.S. Davis Mrs. M.S. Lund
June	11	Longstock Water Gardens	Miss M.W.S. Davis
July	28	Whitchurch Silk Mill and Hinton Ampner House and Gardens	Miss M.W.S. Davis

During the year the speakers covered many countries around the world illustrating their talks with excellent slides.

Mr Elgood described the different habitats in NIGERIA starting with the mangrove swamps on the coast and the rain forests. Then comes the grassy savannah type land and finally where it is so dry the land becomes desert.

SOUTHERN CHILE AND THE PAINE NATIONAL PARK were the subjects of an unusual talk by Mrs. A. Leonard. Scenery of breathtaking jagged mountains of volcanic rock were seen as a backdrop to deep lakes and waterfalls.

As a contrast another member, Mr Le Pard, spoke on THE HUMAN ORIGINS OF OUR LANDSCAPE. A fascinating detective story to be read by those who could interpret the various layers and features of the land.

Two different areas of the United States of America were chosen by two other members. Mrs. Joyce Gray showed the snow clad Mt. Rainier and its glacier, the highest mountain in the Cascade range and reflected in the water of Reflection Lake. On another trail the pine forests on Mt. Baker could clearly be seen as reflections in a lake.

Miss J. White gave the second part of a talk on Western America. This time she started at Salt Lake City, Nevada, through Death Valley and over several ranges of granitic mountains to Owens Valley and the coast at San Francisco.

In November, Col. J.H. Baker gave the Society a very interesting talk on CONSERVATION ON MINISTRY OF DEFENCE LAND. He is the Conservation Officer for the whole of the country so has to deal with a variety of habitats. He particularly mentioned the Stone Curlew which breeds on Porton Down along with many orchids and meadow clary.

AN ARCHITECT'S VIEW OF EASTERN EUROPE by Mr. P. Down showed, in East Berlin, some of the fine buildings by the 19th Century architect Schinkel which have been restored after bomb damage and in Potsdam the delightful little Palace of Sans Souci. In Prague the view of the old city from Charlesbridge is very picturesque.

Miss Watford's choice this season was LEGACY OF THE GLACIERS in which she showed hanging valleys and escarpments which had been scooped out by glaciers during the ice age.

Nearer home Dr. Haskins took a JOURNEY DOWN THE MOORS RIVER pointing out the various habitats as she drifted down in her make-believe boat. At one point near where the Moors River merges with the Stour an otter has recently been observed fishing.

In his talk, AROUND MT. BLANC, Dr. David Godfrey explored several small valleys in the vicinity of Chamonix looking at the many wild flowers which are out in the

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spring and showing the magnificent snow-clad peaks of the mountains.

July brought a change of scene when Mr. Sweetman visited the ROTHER VALLEY in Sussex. This little river has the fine castle of Bodiam on its banks, built by a local baron to act as a defence against the French who were able to sail inland before the channel became silted up.

The season was brought to a close in September by the Chairman who spoke on the SCENERY AND LANDSCAPE OF CRETE. The mountains are hard crystalline limestones with fertile valleys and several high fertile plateaus ringed round by mountains. In the case of the Omalos plateau millions of years ago it was a deep lake the water of which gradually forced its way down through the limestone to form the Gorge of Samaria.

FIELD MEETINGS

In October fifteen members walked along the ridge at Bulbarrow and back along through Green Hill Reserve. Visibility was good and we all enjoyed the sunshine at our picnic spot overlooking the valley.

1993

As January and February are usually cold the walks are held in the morning. Talbot Heath and Ramsdown Hill usually provide good venues, but this year the distant aspects of Poole and Christchurch were shrouded in mist.

It is always a gamble to catch the daffodils in flower at Holt Heath. This year was no exception, there were only a few in bloom.

The April walk along the ridge towards Corfe Castle was bracing although the sun did break through by the time we returned to the cars.

In a poor summer weather-wise the two coach outings managed to stay dry until the homeward journey. Longstock Water Gardens, created and owned by the John Lewis Trust, are a series of small lakes and streams all fed by the River Test with unusual plants and some old favourites. The Himalayan poppy, Meconopsis, in its blue and yellow form was in bloom. The visit to the Whitchurch Silk Mill was very interesting being the only working silk mill in the country. Hinton Ampner House, owned by the National Trust, is a fine Georgian house set in delightful gardens.

I am grateful to Mrs. Saunders and Mrs. Lund for taking the walks in my absence and to all members who have given talks or have formed the audience and made this a successful year.

M. Winsome S. Davis
Chairman

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GEOLOGY

LECTURES 1992

October	3	Water is Life - Aspects of Geology	Dennis Parkin, Operations Co-ordinator, Wessex Water
November	25	Background to Weather Forecasting	Richard Ebling, F.R.Met.S. Southampton Weather Centre

1993

January	23	The Riddle of Flint	The President, Mrs. V.E. Copp B.A., F.G.S.

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February	10	Alternative Energy	Vera Copp, Bill Lee, Tony Ruth, Bill Whitsed
March	8	Purbeck Marblers & Corfe Castle Village	John Burt
May	15	Coastal protection	Richard Mockridge, C.Eng., M.I.C.E.
June	12	Planet Earth	Frank Behennah, C.Eng., F.R.Ae.S., F.I.M.E., F.I.Q.A., F.B.I.S.
July	14	Geology of Oceans and Coasts	Prof. Vincent May, B.A., B.Sc., F.R.Met.S.
July	31	Jade	W.G. Cross, M.B., M.S. B.D.S., F.D.S.R.C.S., F.G.A
August	7	The Geological Work of Charles Darwin	Richard Wilding, B.A., F.L.S.
September	11	English Building Stones	David Leake, B.Ed., R.S.A. (Dip.), A.I.L.

FIELD MEETINGS 1993

January	14	Steve Etches' Museum, Wimborne	Steve Etches
February	18	Martin Green's Museum, Woodyates, and demonstration of flint knapping	Martin Green
April	30	Coach to Oxford	Vera Copp
May	21	Highcliffe coastal protection works	Richard Mockridge
June	25	Sutton Poyntz Water Museum. Geology of area round spring head	Jacquie Summers and Tom Cosgrove
July	30	Dinosaur footprints and Fossil Fair at Sunnydown Farm, Worth Matravers	Vera Copp
August	19	Broad Bench	Steve Etches
September	9	New galleries at Gosport Museum	Dave Kemp

STUDY GROUPS 1992

October	29	Chemistry of Geology	Keith Abineri
November	26	Planetary Geology	Frank Behennah

1993

March	30	Relative and absolute dating of rocks	Tony Ruth

The big event of the year has been the acquisition of a computer by the Society. After much thought the Modes Plus Software was chosen for entering Museum records. In the Geology Section we have made about a thousand entries and are now in a position to experiment with searching techniques to test the system. It will be possible eventually to call up the details of any fossil in the collection or to say, for example, how many fossil groups, how many specimens of a particular genus or how much material we have from a particular horizon.

Progress during this first year has inevitably been slow and I am very indebted to Sheila Geddes who has done most of the initial work. She has generously shared her hard-won knowledge with me and has helped "Ginge" Hall and Sheila Aitken to cope with the special techniques of entering catalogue details on to the computer. Jack Slater is also giving thought to the computerisation of the now well advanced bibliography referred to in last year's report.

As our confidence grows we become increasingly aware of the computer's future possibilities. When the whole collection is computerised we shall be able to supply information speedily and efficiently on any aspect of the Society's geological holdings.

Cataloguing progresses well, more than 30,000 specimens having now been processed by Justin Delair who continues to come down from Oxford nearly every month to

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identify and classify our material. The Geology Section owes a great deal to him for his help and advice on all aspects of our collection. We heard with great pleasure that Council had conferred on him Honorary Membership of the Society in recognition of his invaluable services to the Geology Section over the last eight years.

We congratulate another member of the Geology Section, Steve Etches, who gained the distinction of receiving the 1993 Award to the Amateur Palaeontologist of the Year for his work on the Kimmeridge Clay in Dorset. This award is given by the Palaeontological Association in recognition of work to advance scientific knowledge. Those of us who have been with Steve on field trips or who have visited his wonderful collection at Wimborne and heard his stories of the work behind the scenes will agree that the award was well deserved.

Another of our geologist members, Keith Abineri, has been doing interesting work in co-operation with NASA. He has been studying the NSS data material from the moon under the microscope and making microphotographs. His individual transparencies, 35 mm slides, can cover an area as comparatively small as 40 kms by 27 kms. His main line of research is to explore the geology of the moon with special reference to volcanism. This research has already revealed features which could be of volcanic origin and have not hitherto been interpreted.

The accompanying list of talks, study groups and field meetings held during the year illustrates the continually widening horizons of the Earth Sciences. It is particularly interesting to have new dimensions added to our study of the subject by contributions from other Sections, notably Physics and Chemistry, Astronomy and latterly Archaeology with its research on chemical methods of dating.

We have also enjoyed good relations with the Department of Conservation Sciences of the newly-formed University of Bournemouth. Such interdisciplinary exchange will enable the Geology Section to keep abreast of the many important developments in modern Geology.

Finally a big thank you to all those members who have given help with field trips, talks, study groups and suggestions for topics and speakers, and also to those who have supported the Section with their interest and goodwill. Thank you for all the gifts which are much appreciated, the rare minerals from Alan Gregory, the mammoth's tooth from Angela Warburg, the beautifully illustrated book on minerals from Eric Speight, the polarising microscope from Keith Abineri, and all the interesting pieces and treasures which you have brought along. With such splendid encouragement we look forward to another busy and productive year in 1994.

Vera Copp
Chairman

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HORTICULTURE

LECTURE 1993

February 27	Plants for Busy Gardeners	N. Colborn
April 29	Garden Open Day with N.C.C.P.G.	

The lecture at the joint meeting with the Royal Horticultural Society was given by Nigel Colborn, chaired by Dr. David Godfrey. It was a well attended meeting and enjoyed by all. I was unwell and unable to be there.

In April the Garden was opened to the public for Garden Plants Heritage week. It was a beautiful sunny day and we welcomed 150 people, a record for this event.

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Mr. John Lockwood took a party round and explained the art of pruning. People bought plants, had tea and enjoyed looking at the garden. Many thanks to all who helped.

Members have helped us reach our target for replanting a number of trees after the felling of five conifers in 1991.

There is a slow change in the garden which has to be, nothing stands still. The **Clerodendrum Trichotomum** is dying of old age, it has suckered and we have already planted the off-spring in another part of the garden. It is an interesting tree, not often seen and we would not like to be without it. The Rhododendrons planted in the 40's are troubled with vine weevil and mildew. We have consulted Wisley. This condition is pretty nation wide, made worse by the past dry summers. Now after the wettest for years we hope for some improvement.

On her retirement as our Assistant Treasurer, Mrs. I. Towndrow presented the Society with a bird bath. It is sited in the garden where members can see it from the Museum windows. We were of course thrilled to have another interest in the garden. Thank you Iris.

The garden shed was broken into and many old favourite tools stolen. My grateful thanks to Bill Arnold and Philip Whieldon for helping to sort out the problems that arose from this.

To all members who lend support in any way - thank you.

Mary Blower
Chairman

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PHYSICS AND CHEMISTRY

LECTURES 1992

December	16	CHAOS	A.B. Ruth M.A.
1993			
January	6	C.O.M.F.O.R.T. Part 2	Geoffrey Cox C.I.B.S.
March	13	Complementary Medicine	Robert Kelvinson R.G.N., B.Sc.
April	28	Science Questions	Chairman, F.W. King
June	5	A History of Clocks	Tony Gutteridge
September	22	Chemistry & Archaeology	Dr. John Beavis

The list of lectures indicates that the Section has been able to provide a full programme and it is pleasing to record that the number of members showing interest has been steadily increasing. The credit for this rise is entirely due to the popularity of the leader, the Rev. Fred W. King, and his choice of subjects. Our thanks are here accorded to him. Unfortunately, Mr King found it necessary to resign from the position following the death of his wife. His retirement is much regretted.

A very successful Open Day was provided by Mr John Downes and our thanks are due to him.

After a break of some months Dr. David Godfrey has agreed to take charge of the Section and we are looking forward to further successes in the coming year.

F.R. Watson

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PHOTOGRAPHY

LECTURES 1992			
October	24	Greenland Adventure	Mrs. M. Bright
November	23	China	K.M. Eames, F.C.A.
December	12	Spring to Autumn	L. Packham
1993			
January	13	Impressions of Coast and Isle	D.W. Poynter, A.R.P.S.
February	3	Orkney	Miss M. Welsby
March	17	Burton to Bournemouth	Mrs. R.V. Burn
April	14	Egypt	Mrs. G. Comley, F.B.C.O., A.R.P.S.
May	22	Dorset Wildlife	B. Edwards
June	26	Fair Isle	L. Packham
July	3	West Dorset	H.F. Toms
August	14	Return to Zimbabwe	Mrs. M. Bright
September	6	Indonesia	G. Lilley

We have had a full and, I think, successful year of lectures with a high standard of photography shown throughout.

As can be seen from the titles, we have travelled far and wide - starting in the far north in Greenland with Mrs Bright and ending far south with a return trip to Indonesia by Gary Lilley.

In between, we went from the geology of Dorset with Mr Toms to the historical scenery of Egypt with Mrs. Comley's audio-visual plus a quick trip to China by Mr Eames, and here I must thank Mr Eames for stepping in at such short notice. A nostalgic look at Bournemouth through the magic lantern show of Mrs Burn brought back memories for a number of members. We saw the seasons through the lens of Mr Packham as well as a fascinating trip to Fair Isle, and another to Orkney, this time with Miss Welsby. Dorset Wildlife with Bryan Edwards showed us what we could photograph in our gardens given a little patience.

B.M. Spibey
Chairman

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ZOOLOGY – ENTOMOLOGY

LECTURES 1992			
October	7	Little Miss Muffet and others - the early history of Entomology	G. Le Pard
December	5	Forests of Natal	Miss M.M. Brooks Ph.C., M.R. Pharm.S., F.R.S.H., F.R.E.S.
1993			
March	10	Camouflage, Mimicry and Warning Colours	Miss M.M. Brooks
FIELD MEETINGS 1993			
May	27	Martin Down	Miss M.M. Brooks
June	15	Holt Heath	Miss M.M. Brooks
July	2	Crockford Bridge	M.A. Spencer

The season has proved to be something of a nightmare for Lepidopterists. The timing of flight periods for many species was way off the normal, and while some species of butterflies and moths enjoyed a good season - for example, in the

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Purbecks the second generation of Adonis Blue (L. **bellargus**) was seen in good numbers - for others the season has been catastrophic with few sightings. In this area migrants have not been plentiful; numbers of Red Admirals (**V.atalanta**) and Painted Ladies (**V. cardui**) have been much smaller than usual, and the only migrant moth to occur in any quantity was the Silver Y (**A. gamma**).

Our field meetings in 1993 enjoyed mixed fortunes weather-wise. For the Martin Down visit the skies were overcast and temperatures during the day veered between warm and chilly, but in spite of this the trip proved very interesting - 4 Marsh Fritillaries (**E. aurinia**) were seen, including a newly emerged female drying her wings beside her pupa case. Very large numbers of larvae of the Yellow-tail (**E. similis**) were found. The Holt Heath moth trapping was not as productive as that of the previous year owing to a very cold and windy night, but even so it produced 32 species. The Crockford Bridge visit enjoyed sunshine, 10 species of Odonata and a good selection of butterflies, including White Admiral (**L. camilla**). The field meeting programme terminated earlier than planned when the Vernditch visit was washed out.

The lecture in October was given by our member, Gordon Le Pard, who gave us a fascinating account of the lives and work of some of the early Entomologists, mentioning Miss Muffet (the well-known arachnophobe) whose father produced one of the earliest books on butterflies. The scientific work achieved by those early Entomologists is staggering in its quality and one must also remember that most people in those days regarded butterfly enthusiasts as extremely eccentric, if not downright insane. In December the talk centred on Natal, the smallest province of South Africa, and in particular on the rich wildlife of its forests, ranging from the dry coastal forests to the damp and misty mountain forests on the lower slopes of the Drakensberg range. In March the talk illustrated the tremendous variety of protective strategies employed by members of the insect world in order to avoid detection or to deter predators.

My thanks to the members who so faithfully support the field meetings and lectures, and to Mark Spencer for his indispensable help with the field meetings. A special note of thanks to one of the Elders of the Entomology section, Mr Scarsdale Brown, who has flown these shores to take up residence in warmer climes. His vast knowledge of all Orders was always at our disposal. Thank you, Scarsdale, and we wish you well in your new home.

Margaret Brooks
Chairman

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ZOOLOGY – MAMMALIA

LECTURES 1992

October	19	B.N.S.S. and Other Animals	Winsome Davis, Barbara Spibey, Mary Arnold
November	9	Kenyan Safari	Dick Harding

1993

February	8	British Reptiles and Amphibians	Martin Noble
March	3	British Wildlife	Dennis Bright
March	27	Recent Zoo Developments	Graham Teasdill F.M.A., F.R.S.A., F.R.N.S., F.Z.S.
April	7	A Country Year - Dorset through the Camera Lens	Michael Shepherd
August	25	Dolphins and the Dorset Coast Line	Malcolm Turnbull
September	25	The Myths and Realities of Bats	Lesley Ridgley

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FIELD MEETINGS 1992

October	8	Cranes Moor and Dur Hill Inclosure	Mary Arnold
October	22	Brinkenwood and Queen's Meadow	Evelyn Whattoff and Betty Souter
November	3	Hawkhill and Frame Heath Inclosure	Winsome Davis and Margaret Lund
November	17	Vereley and Berrywood	Jack Andrews
December	10	Burley New Inclosure	Bill A. Arnold

1993

February	23	Dockens Water, Holly Hatch and Sloden Wood	Jack Andrews
March	9	Highland Water Inclosure	Mary Arnold
March	23	Rhinefield	Evelyn Whattoff
April	1	South Oakley and Beach Bed Inclosures	Mary Arnold
April	15	Ober Heath and Queen's Meadow	Martin Noble
May	13	Puttles Bridge and Aldridge Hill	Evelyn Whattoff
July	8	South Oakley Inclosure	Bill G. Arnold
September	16	Bratley and Backley Areas	Mary Arnold

For the talk in October on BNSS AND OTHER ANIMALS Barbara Spibey put on some beautiful slides of lions, tigers and deer seen in Dartmoor Wildlife Park and otters in Buckfast Otter Sanctuary. Winsome Davis and Mary Arnold showed places visited and members present on BNSS field meetings.

On October 22nd Evelyn Whattoff and Betty Souter led a walk through Brinkenwood to Queen's Meadow. As well as groups of deer along the way, we watched a large fallow buck groaning, also chasing and rounding up any doe that strayed from his 55 strong harem. It was interesting to observe two prickets (year old fawns with antlers in the form of two spikes) on the edge of the herd, which the buck chased off from time to time, though they soon sneaked back. Two other prickets lay partly hidden in long grass slightly away from the herd and these were ignored by the buck.

On November 3rd Winsome Davis and Margaret Lund led a walk in the hope of seeing Sika deer during their rut. Five Sika hinds ran by us near the Sika wallows in Hawk Hill. A Sika stag and one white and one common fallow doe were observed in Frame Heath Inclosure.

Dick Harding's talk on a KENYAN SAFARI kept us enthralled with his photography of the numerous animals he had seen on early morning and evening excursions with the help of a skilled native driver. Slides included waterbuck, reedbuck, warthog, elephants, zebra, crocodiles, impala, oryx, a male cheetah watching two female cheetahs fighting over a hare, massed flamingoes, a fish eagle, white ibis, superb starling, giraffe, gazelle, dik-dik, hyenas, monkeys, wildebeest and many others.

Jack Andrews led two walks. On November 17th he took us from Vereley and through Berrywood. Then on February 23rd he led a 4½ mile walk from High Corner Hotel and beside Dockens Water, then visiting Holly Hatch Inclosure and Sloden Wood where we viewed the site of a pottery kiln. On our walk twelve fallow does were seen.

BRITISH REPTILES AND AMPHIBIANS were the subject of a talk by Martin Noble, Head Keeper, New Forest. Interesting facts included the following:- During the winter when the temperature drops below 12^{o}C newts, frogs and toads become torpid but do not have a true hibernation. Most frogs spend the winter in mud at the bottom of a pond. Frog tadpoles are brown and take 2 to 3 years to reach maturity. Toads spawn over several hours and their tadpoles are black and contain a poisonous

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secretion. They are less secretive than frog tadpoles and like to sun themselves near the surface of the water where they may be seen when the sun is out.

The Natterjack Toad lives in sandy areas and has a loud call which may be heard half a mile away. The Edible Frog is present in a few isolated pockets in the New Forest. The Tree Frog is green and lives in trees in only one or two places in the New Forest. The females come down to a pond to spawn once a year, while the males come down and call night after night sitting half in and half out of the water. The Marsh Frog lives on Romney Marsh, while on Jersey there is the Agile Frog.

Smooth, Palmate and Crested Newts are all found in the New Forest as are Slow-worms, Common Lizards and the rare Sand Lizard. Far less known is the Wall Lizard, bigger and more agile than our other lizards. These frequent walls and gardens in Bembridge on the Isle of Wight and are also found in the New Forest and on the cliffs of Bournemouth.

Adders come out of hibernation in February or March and the first shedding of skin takes place in May. Grass snakes tend to like wet places. They may play possum and look dead to deter predators.

Dennis Bright gave a show entitled BRITISH WILDLIFE, explaining the techniques used to obtain his superb photographs of mammals and birds. It took three weeks to obtain close up pictures of a wild fox enticed to approach the camera by feeding it with tuna and dog food. Badgers were photographed climbing a tree stump, and badgers and a fox were seen eating food together. Other scenes included a Field Vole, Woodpeckers, Sparrow Hawks and their nest with eggs and chicks, and Kingfishers.

Graham Teasdill gave the fourth of his talks on LONDON ZOO by taking a look into the future. The Zoo hopes to alter the public's perception of London Zoo from that of an urban menagerie to a dynamic conservation organisation.

Through the kindness of Elspeth Chaplin, Secretary to the Director, Dr. J.H.W. Cripps, and of Zoo Operations Ltd., Mr Teasdill was able to borrow a copy of the London Zoo Business Plan 1993/4 and to read aloud many of its more important sections. This document makes proposals that are estimated to cost 21 million pounds, create a substantial trading surplus and considerably increase the number of visitors.

The importance of captive breeding for conservation and the selection of species for this and their value in explaining the diversity of the animal kingdom were emphasized.

Mr Teasdill showed slides of the proposed developments at London Zoo lent by Gina Dobson, the Zoo's Press Officer. Further slides were shown lent by Peter Humphreys of the Zoo's Library and Archives' Departments.

In London Zoo in 1993 there are around 92 species of mammals, 130 species of birds and 100 species of reptiles and amphibians. In addition, there are around 4,000 fish of 250 species and over 6,000 invertebrates of 70 species. Of all these more than 100 species are part of nationally or internationally co-ordinated captive breeding programmes.

Increased emphasis is to be placed on interpretation and education based on conservation to produce a modern Zoo of the highest quality with animal welfare and the preservation of natural behaviour as its highest priorities and so re-establish London Zoo as a world leader amongst Zoos.

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Michael Shepherd gave us A COUNTRY YEAR - DORSET THROUGH THE CAMERA LENS illustrated by slides of beasts, birds and wild flowers. He described a badger sett in a tangle of blackthorn bushes not far from his house. First there were foxes, but once the badgers arrived the foxes kept away. When the badgers came into his garden he put food out for them, gradually placing the food nearer and nearer to his house until they ended up eating from his window sill. Now 5 badgers come every night and he observed how a badger will spread its body over food to keep the food to itself. The cubs could do anything with the sow and could take food from her, but the male would not allow this. Mr Shepherd found the presence of dormice in a wood, indicated where the stems of honeysuckle had been stripped to form nesting material.

On April 15th Martin Noble, Head Forester, New Forest led a walk across Ober Heath to Queen's Meadow where over 50 fallow deer were counted. These are the most numerous species of deer in the New Forest. The bucks live an average of 10 years while the does live longer, possibly 15 or 16 years. This is being researched by a forester who has the remarkable skill of being able to recognise individual deer throughout their lives.

On July 8th Bill G. Arnold led a walk in and around South Oakley Inclosure. We saw several fallow does always in just ones or twos, two does had young fawns with them . In addition we watched three red hinds which were lying down in the heather. After a time they got up and sauntered along the hill side, and we were able to admire the deep red colour of their summer coats.

Malcolm Turnbull, Senior Warden of Durlston Country Park, gave a most interesting talk on DOLPHINS AND THE DORSET COASTLINE. Dolphin watchers have recorded seeing dolphins on 50 to 60 days in the year in the sea off Durlston and they are able to identify individuals by the scars on the dorsal fin. Dolphins appear to like fishing between ledges which run out to sea from headlands and a similar condition is found in Cardigan Bay where dolphins are also found to congregate.

On September 16th a field meeting in the Bratley and Backley Areas was most rewarding in that over 80 fallow deer were seen, some in large gatherings and some in quite small parties. Mainly bucks and does were in separate groups, but in one place a lone buck was being followed by one doe.

Lesley Ridgley gave a fascinating talk on THE MYTHS AND REALITIES OF BATS. Bats are the only flying mammals and belong to the order Chiroptera, meaning hand-winged. Of the 980 known species of bats in the world only 14 species are to be found in Britain.

Bats hibernate during the winter and are torpid during the day when their temperature, heart-rate and breathing are greatly reduced. Their life span is from 8 to 30 years and females normally produce only one young each year.

The Pipistrelle is the smallest bat in the British Isles and is by far the most common species here. The Daubentons Bat is fairly common and likes to hunt low over lakes, rivers and ponds where it takes insects off the surface of the water.

The Greater Horseshoe Bat is present in Britain only in Southern Counties. It was interesting to hear of a colony in Blandford where the adults take their young to hibernate in caves on the Dorset Coast for more humid conditions there, while they themselves return to Blandford for the winter because adults require less humid conditions during hibernation. In spring the adults collect their young and bring them back to Blandford.

There was an unfortunate misprint in the 1991-92 Proceedings. On page 47 the 1st word on the 5th line should have been MARK not MASK - an exact opposite in

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meaning. I am grateful to Molly Saunders who painstakingly corrected this in most copies.

A limit on space means that not all field meetings can be described, and only a few highlights have been recorded: but many thanks are due to the leaders who made these walks so enjoyable.

Mary Arnold
Chairman

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ZOOLOGY – ORNITHOLOGY

LECTURES 1992

October	17	In Search of Waders	J.F. Renolds, M.B.O.U.
November	28	Impressions of Spring	D.W. Poynter

1993

January	18	Birds of Prey, looking after & caring for Owls	B. Berry
February	6	Birds of Wessex	Dr. D.J. Godfrey
March	31	The Birds of the Farnes, Holy Island & Bass Rock	W.J. Whitsed
May	8	Bee-Eaters & their Allied Species	J. Elgood
June	23	West Coast USA - Birds & Wild Flowers	Dr. D.J. Godfrey
August	11	Bird Recognition	Dr. D.J. Godfrey
September	18	Flights of Fancy	W.J. Whitsed

FIELD MEETINGS 1992

October	1	Radipole Lake & Lodmoor	J.G. Parkinson
October	20	Stanpit Marshes	R.B. Reid
November	5	Shipstal Point, Arne	P.F. Powell
November	19	Beaulieu Road	P.F. Powell
December	4	Titchfield Nature Reserve	The Warden & P.F. Powell
December	18	South Haven Peninsula	Abandoned

1993

January	5	Keyhaven Marshes	P.F. Powell
January	28	Farlington Marshes	P.F. Powell
February	16	Calshot Spit	P.F. Powell
February	25	Pagham Harbour	P.F. Powell
March	11	Portland Bill	T.P. Whieldon
March	18	Burley, Red Rise	Mrs. M. Saunders
April	8	Stanpit Marshes	R.B. Reid
May	6	Talbot Heath	Mrs. M. Evelyn
May	14	Martin Down	D.J. Godfrey
May	28	Winspit	P.F. Powell
June	3	Beaulieu Road	P.F. Powell
June	9	Sherford Bridge	J. Lockwood & Mrs. M. Evelyn
June	17	Oberwater	Mrs. M. Saunders
July	1	Kingston Common	T.P. Whieldon
July	29	Upton Country Park	P.F. Powell
August	6	Stanpit Marshes	R.B. Reid
September	2	Ninebarrow Down	Mrs. M. Saunders
September	21	Keyhaven Marshes	R.B. Reid
September	30	Durlston Country Park	P.F. Powell

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This year the Ornithology Section has had an interesting and enjoyable series of field days. Although the weather has not been very "kind to us" on a number of occasions, with rain being driven by gale force winds, which has certainly led to the birds hiding from the elements, including us.

1992
Radipole and Lodmoor, near Weymouth on 1st October provided us with some excellent sightings with a large number of Ducks and Waders. The highlight of the afternoon at Lodmoor was an Aquatic Warbler.

At Stanpit Marshes in October we saw many Waders and Terns with the usual Herons and sighted a Peregrine.

Early November saw us at Shipstal Point, Arne where from the hide we watched a Kingfisher showing well for at least three quarters of an hour. Redbreasted Mergansers, Shoveller and Greenshank were also seen.

Green, Greater Spotted and Lesser Spotted Woodpeckers were all seen at Beaulieu Road in mid November.

Our annual visit to Titchfield Haven Nature Reserve in early December again proved to be a very enjoyable time giving us sightings of a large number of Ducks and Waders. We were able to pick out a Barnacle Goose among a flock of Canada Geese.

The last meeting on the 18th December had to be cancelled due to bad weather.

1993
Our first meeting of the New Year was plagued by bad weather and had to be abandoned after half an hour. However, during this short meeting a fairly large variety of Waders were seen.

Late January saw us at Farlington Marshes. Once again this was another meeting that had to be abandoned due to weather conditions. We did see a flock of Brent Geese which was estimated to be almost 5000 strong.

February 16th meeting was at Calshot which gave us a good variety of birds.

On the 25th February we visited Pagham Harbour for the first time and although a strong South Easterly wind made conditions very cold, it turned out to be fairly rewarding, having seen Avocets, Goldeneye, Pintail and Eider amongst many others.

Early March at Portland Bill was a bit disappointing, the migrant birds we had hoped to see had not arrived.

Burley Red Rise area was a pleasant walk but did not show any species of note.

8th April at Stanpit Marshes was a bit of a disaster when very high tides reduced the walk by about two thirds, although a fair number of birds were sighted.

A morning walk on Talbot Heath in early May gave good views of a Dartford Warbler.

On the 14th May at Martin Down saw half the party on the way home before we started due to heavy rain. Those that remained did hear the Nightingale sing even though it was pouring with rain. The afternoon cleared up and we were able to see the Stone-curlew which are getting quite rare these days.

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In late May at Winspit we had a good sighting of a Little Owl, also seen were Scoter, Guillimot and Fulmar.

Willow Warbler was seen during our second visit to Beaulieu Road together with Wheatear and a Garden Warbler.

The 9th June saw us once again on an evening visit to Sherford Bridge where we saw at least eight Nightjars displaying.

Redstart, Tree Creeper and Chiffchaff were seen at Oberwater on the 17th June.

Kingston Common gave us a look at Tawny and Little Owls on the 1st July.

At Stanpit Marshes in early August we saw Sandwich, Common and Little Terns.

A Redstart gave a very good sighting, hopping from branch to branch for ten minutes at Ninebarrow Down in early September.

Due to Sea-wall work at Keyhaven the meeting point had to be altered to Lower Pennington Lane. A number of Grey Plovers, Turnstones and Curlew were seen. A Buzzard was also seen, but the highlight of the day was five Little Egrets.

The last meeting at Durlston Country Park had to be abandoned, once again due to adverse weather conditions.

We have had some very interesting and a high standard of Lectures over the last twelve months. Perhaps the one that caught everyone's imagination was in February when Mr Bruce Berry of the New Forest Owl Sanctuary came along with his live birds and gave us a lively talk and demonstration.

I would like to take this opportunity to thank Dr. David Godfrey, Mr Bill Whitsed and Mr John Elgood for their most interesting talks which helped me to arrange my programme.

I would also like to thank Mrs. Mollie Saunders, Mr Bob Reid, Mr Philip Whieldon and Dr. David Godfrey for helping me out by leading Field Meetings. In conclusion my grateful thanks to Miss Winsome Davis for taking the Chair for me at Lectures.

LOCAL RECORD LIST OF BIRDS OF PARTICULAR INTEREST

Artic Tern (**Sterna macrura**) 22 Sept., Keyhaven
Buzzard (**Buteo buteo**) 22 Sept., Keyhaven, 2 Sept., Ninebarrow Down
Cetti's Warbler (**Cetti cetti**) 1 Oct., Radipole, 4 Dec., Titchfield
Shoveller (**Sptula clypeata**) 1 Oct., Radipole, 4 Dec., Titchfield
Peregrine (**Falco peregrinus**) 20 Oct., Stanpit Marsh
Barnacle Goose (**Branta leucopis**) 20 Dec., Titchfield
Gadwall (**Anas Strepera**) 4 Dec., Titchfield
Kestrel (**Falco tinnunculus**) Calshot, Stanpit, Durlston
Kingfisher (**Alcedo atthis**) 19 Nov., Shipstal Point
Little Owl (**Athene noctua**) 1 July, Kingston Common
Tawny Owl (**Strix aluco**) 1 July, Kingston Common
Nightjar (**Caprimulgus europaeus**) 9 June, Sherford Bridge
Dartford Warbler (**Sylvia undata**) 6 May, Talbot Heath
Hen Harrier (**Circus cyaneus**) 19 Nov., Beaulieu Road
Stone Curlew (**Burhinus oedicnemus**) 14 May, Martin Down
Redstart (**Phoenicurus phoenicurus**) 2 Sept., Ninebarrow Down

P.F. Powell
Chairman

MEMBERS AFTERNOONS

1992			
November	11	Dorset Place Names Crossword	Miss L. Carlton
December	9	Books and People	Miss G. Hayball
January	11	New Members' Afternoon - New members were welcomed by the President, Mrs. V.E. Copp, and then shown round the various rooms of the Society	The President
February	15	Slides of Northumberland	T.P. Whieldon, B.Sc.
March	15	Poetry Readings	Members
April	19	Fun with Words	Members
May	26	Members' Slides	Members
June	16	Round the garden at No. 39 Bring and Buy. Plant Stall. Tea in Hall	Miss Blower
July	12	Grass	Mrs. M. Sparkes
August	18	Newspaper Cuttings	Members
September	20	Quiz	Members

Nine new members were shown round the Society in January and a number round the garden in June. It looked as lovely as ever, but Mr Whitsed's offer of a slide quiz was welcomed when the weather worsened.

During the year there were three talks. Mr Whieldon enlightened us about Northumbria, Miss Hayball told us about the interesting and famous people she had met when connected with the book trade and Mrs. Sparkes gave us a lively insight into the structure of grasses.

In November there was an innovation - a crossword. The subject was Dorset Place Names and it was well received. Poetry readings have been a regular feature for some years and many old favourites were read in June.

Fun with Words and Newspaper Cuttings produced some interesting ideas. The quiz on London was treated light-heartedly as members who had never lived in London found it difficult.

It was encouraging that two of the four members who showed slides of such a high standard in May were new members.

My thanks to all participators. May we have more in future.

H.M. Dickinson
Chairman

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LIBRARY

The death of Miss P.E. Winter in March of this year came as a shock to the Society, but particularly to the Library Committee where she had served as our energetic and active Chairman and representative to Council since November 1990.

We shall very much miss her expertise and love and knowledge of books that she brought to our meetings.

Mrs. H.M. Dickinson, a member of the Committee has kindly agreed to fill the vacancy, chair our future meetings and represent us at Council.

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During the past year we have purchased fifteen new books and received an overwhelming number of donations which are slowly being absorbed and processed into our system. The indexing and writing of cards is quite a time consuming operation as is the categorising.

We acknowledge all these donations together with several periodicals on display in the Library for the perusal of members.

It may be of interest to new and some older members to know that the books displayed in the bookcase in the Hall are changed every month and we try to show books relevant, so far as possible, to the month's lectures.

All of the work in the Library is only possible with the help and assistance of Tuesday morning Library staff, Miss J.M. Merchant and Miss A.C. Norvall who give so freely of their time to the Society.

My thanks also to the Library Committee who assisted in manning both Library Rooms on Open Day.

R.E. Harwood
Librarian

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MUSEUM

During this year a post mortem meeting on the 1992 Open Day was arranged under the auspices of the Physics and Chemistry Section and views of members were expressed on how future Open Days might be improved. Kathleen Lawrence, as the Society's Press Officer, undertook to try to improve our image with the media and it is significant that many more members than usual offered their services as stewards to assist with the 1993 Open Day.

We are very sorry to have lost our Chairman, the Rev. F.W. King, known affectionately as "Uncle Fred". He lost his wife, who was also a most enthusiastic B.N.S.S. Member, and has since been endeavouring to adjust to a new life deprived of her love, companionship and support. He has also resigned from the Chairmanship of Physics & Chemistry Section and has been succeeded by Dr. Godfrey, who is also now an ex-officio member of the Museum Committee.

Mrs. Jessie George, who had remained Vice Chairman of the Museum Committee after stepping down as Chairman, was persuaded to serve as Acting Chairman for the remainder of the current year until the Society's Museum Committee Meeting immediately following the Society's A.G.M. in November 1993.

The Society's President until 30th October 1993 and Chairman of the Geological Section has been persuaded to accept nomination to become Chairman of the Museum Committee for 1993-94 and we are most grateful to her in this respect.

Both Mr W. And Mrs. J. George have done sterling work for the Museum over a number of years both verbal and practical. In particular, their arrangement of exhibitions in the Public Libraries in Poole and Bournemouth to advertise our Open Days has been delightful. Most particularly praiseworthy, however, has been their expert organisation of the Open Days themselves.

The regular Tuesday morning working parties of voluntary helpers have continued to render sterling service to the Museum, notably Jack Andrews, Marion Hancock and Josephine Zara and an additional group of helpers has been assisting Vera Copp with the Geology and the Computer.

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Finally I would like to express my thanks to my Deputy Curator, Tony Westrap, who despite ill health and added responsibilities with the computer, has continued to render generous and distinctive service to the Society's Museum.

Graham Teasdill
Hon. Curator

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THREE DAYS IN THE SOCIETY'S PROGRAMME FOR JUNE 1993

It is interesting to note that during the year ending June 1993 the Society held no fewer than 228 meetings, of which 124 were lectures, etc. and 104 Field Meetings.

Here is a brief description of three of those Field Meetings held on consecutive days in June 1993 which illustrate the variety and diversity of the Society's activities.

For the first meeting on the 15th June the programme simply said "Holt Heath - Morning Meeting to examine contents of Moth Trap". It gave no indication of the preparatory work which Miss M.M. Brooks had to organise. This consisted of getting to the site the previous evening, setting up the trap, coaxing the generator to supply attracting light and waiting for three or four hours in unpleasant and windy conditions. Then dismantling the whole set-up only to return again the following morning to meet members at the same spot to see what the trap would bring forth. The damp conditions of the previous evening did not auger well, but to the surprise of eager onlookers Miss Brooks revealed some 32 different species and named them all without hesitation. These included descriptive names like - Beautiful Brocade, Heart and Dart, Satin Wave, Maidens Blush, Flame Shoulder, Grey Pine Carpet, Cinnabar, Angle Shades, Double Striped Pug and many more. A very satisfactory and interesting morning for the 20 or so members who attended this Field Meeting.

The next day was programmed as "Round the Garden at No. 39 with Miss M. Blower". There were stalls for plants and bring and buy. Unfortunately the weather wasn't too kind but it still enabled members to wander round and ask questions about the hundreds of plants, trees and shrubs flourishing in the the garden before retreating inside for refreshments, attractively prepared by Mrs. Joan Crompton and her helpers. To fill in an interesting afternoon Bill Whitsed quizzed an engrossed audience with his puzzle slides.

The following day members were invited on an Ornithological Walk to Oberwater in the New Forest. Meeting at Markway Hill and geared with waterproof footwear the traffic noise on the A35 was soon lost as the party made its way, first on dry paths and then across wetland which had been replenished by recent rains. Whilst the observation of birds was the prime object of the meeting other aspects of the Society's interest soon manifested themselves. Two Red Deer were spotted in the distance to be followed later by two large herds of Fallow Deer totalling some 29 in all, whilst Molly Saunders who was leading the walk soon showed her interest in Botany, pointing out some little known plants and flowers.

Archaeology also played a part as two tumuli were observed on the way to the Oberwater which was found to be overflowing its banks because of the recent rains.

Meanwhile the ornithologist enthusiasts were identifying some 23 different species including the Tree Creeper, Redstart, Chiffchaff, Goldcrest and Wood Warbler.

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The return walk in the afternoon was heavy going in parts but enjoyable and, whilst the outing was essentially for the ornithologists, it also provided a variety of other interests which broadened the scope - a situation which often occurs on Field Meetings.

W.D. Watson

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Moth Trap at Holt Heath

Markway - Oberwater

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LIST OF PRESIDENTS (1903 - 1993)

1903-04	J.E.Beale (Mayor of Bournemouth)
1904-06	G.E.J.Crallan, M.A., M.B., M.R.C.S.
1906-07	H.J.Waddington, F.L.S.
1907-09	A.Ransome, M.A., M.D., F.R.C.P., F.R.S.
1909-10	A.Smith Woodward, D.Sc., F.R.S., F.L.S., P.G.S.
1910-11	Dukinfield H.Scott, M.A., LI.D., F.R.S., F.L.S., F.G.S.
1911-13	Sir E.Ray Lankester, K.C.B., M.A., LI.D., F.R.S., F.L.S.
1913-16	Sir Daniel Morris, K.C.M.G., J.P., M.A., D.Sc., D.C.L., F.L.S.
1916-17	The Rt.Hon. the Earl of Malmesbury, D.L., J.P.
1917-18	Sir Jethro J.H.Teale, M.A., D.Sc., LI.D., F.R.S.
1918-20	Field Marshall Lord Grenfell of Kilvey, G.C.B., G.C.M.G., LI.D., F.S.A.
1920-21	Lt.Col. Sir David Prain, C.M.G., C.I.E., F.R.S.
1921-23	F.G.Penrose, M.D., F.R.C.P., F.Z.S., M.B.O.U.
1923-24	Sir F.W.Keeble, K.B.E., D.Sc., F.R.S.
1924-26	Hubert Painter, B.Sc., F.C.S.
1926-28	Heywood Sumner, F.S.A.
1928-29	Claude Lyon
1929-30	Professor F.O.Bower, D.Sc., F.R.S.
1930-31	Henry Bury, M.A., F.L.S., F.G.S.
1931-32	Dukinfield H.Scott, M.A., LI.D., F.R.S., F.L.S., F.G.S.
1932-33	J.P.Williams-Freeman, M.D.
1933-34	Rev.F.C.R.Jourdain, M.A., F.Z.S., M.B.O.U.
1934-35	Sir F.W.Dyson, K.B.E., M.A., D.Sc., LI.D., F.R.S., F.R.A.S.
1935-36	Henry Bury, M.A., F.L.S., F.G.S.
1936-37	Sir Harold Carpenter, M.A., D.Sc., F.R.S.
1937-38	Professor John Cameron, M.D., D.Sc., F.R.S.E.
1938-39	Professor G.D.Hale Carpenter, M.B.E., D.M., F.L.S., F.Z.S., F.R.E.S.
1939-40	W.G.Aitchison Robertson, M.D., D.Sc., F.R.C.P., F.R.S.E.
1940-41	Rev.Professor M.C.Potter, M.A., D.Sc., F.L.S.
1941-42	Inst.-Capt.M.A.Ainslie, R.N., M.A., F.R.A.S.
1942-43	William C.Simmons, B.Sc., A.R.C.S., F.G.S.
1943-44	Professor S.Mangham, M.A.
1944-45	A.S.Hemmy, B.A., M.Sc.
1945-46	J.F.N.Green, B.A., F.G.S.
1946-47	Lt.-Col.C.D.Drew, D.S.O., F.S.A.
1947-48	W.J.Woodhouse, A.C.P.
1948-49	Edward Hindle, M.A., D.Sc., F.R.S., F.Z.S.
1949-50	Mrs.W.Boyd Watt, F.Z.S., M.B.O.U.
1950-51	Professor Sir R.A.Peters, M.C., M.A., M.D., F.R.S.
1951-52	Ernest Chambers, F.L.S.
1952-53	F.Williamson, F.R.Hist.S.

1953-54	H.E.Clarke, M.A., B.Sc., F.R.I.C.
1954-55	W.J.Read, M.Sc., F.R.I.C.
1955-56	W.S.Brown,B.Sc.
1956-57	A.W.Legat, M.Inst.C.E., M.I.S.E.
1957-58	D.A.Wray, Ph.D., M.Sc., F.G.S.
1958-59	Miss M.A.M.Penrose, B.Sc.
1959-60	Miss D.M.Lowther, B.Sc.
1960-61	James Fisher, M.A., F.L.S., F.Z.S.
1961-62	W.P.Winter. B.Sc.
1962-63	F.H.Perring, Ph.D., M.A.
1963-64	Miss F.M.Exton, B.A.
1964-65	Dame Kathleen Lonsdale, D.B.E., D.Sc., F.R.S.
1965-66	A.J.Butcher, F.R.I.B.A.
1966-67	Mrs.A.K.Hunt, B.Sc.
1967-68	Professor F.Hodson, Ph.D., B.Sc., F.G.S.
1968-69	T.Marshall Bell, B.A., M.B., B.Ch.
1969-70	Ernest Chambers, F.L.S.
1970-71	Graham Teasdill, F.M.A., F.R.S.A., F.R.N.S., F.Z.S.
1971-72	Miss Ursula M.Ogle
1972-73	Sqd.-Ldr.J.L.C.Banks
1973-74	Miss K.Milner Bennetts, F.Z.S.
1974-75	Don Small, M.Sc.
1975-76	S.C.S.Brown, F.D.S., R.C.S., L.D.S.
1976-77	F.Oldham, J.P., M.A., B.Sc., F.Inst.P.
1977-78	W.H.Lee
1978-79	Mrs.G.M. Thomas, M.A., B.Litt.
1979-80	T.A.Crawshaw, F.Inst.M.C.
1980-81	Miss M.M.Brooks, Ph.C., M.R. PharmS., F.R.S.H., F.R.E.S.
1981-82	Mrs.M.K.Parkinson
1982-83	Miss K.Milner Bennetts, F.Z.S.
1983-84	Miss M.W.S.Davis
1984-85	R.F.Harrison, F.M.A.
1985-86	Miss R.H.D.Winter
1986-87	J.G.Parkinson, F.Z.S.
1987-88	Miss M. Stocker, B.A.
1988-89	Mrs Jessie George
1989-90	M.P. Bentley O.B.E., C.Eng
1990-91	T.P. Whieldon B.Sc.
1991-92	F.R. Watson
1992-93	Mrs V.E. Copp, B.A., F.G.S.
1993-94	G. Nash, M.A., F.R.A.S.

BOURNEMOUTH NATURAL SCIENCE SOCIETY (A REGISTERED CHARITY)
RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDING 30 SEPTEMBER 1993

1992	RECEIPTS	£	£	£
	SUBSCRIPTIONS AND DONATIONS			
6016	Subscriptions		5966	
155	Donations: Specified	320		
208	General	242	562	
485	Tax Refund on Covenants		514	7042
	INCOME FROM LETTINGS			
2625	Rent	3000		
363	Rates, Water, Gas	298	3298	
480	Hire of Hall/Garden		535	3833
	ACTIVITIES			
30	Field Meetings		133	
549	Teas		508	
34	Social: Tea Party	-		
230	New Year Party	320		
20	President's Luncheon	18		
330	Garden Party	375	713	1354
	SUNDRIES			
165	Plant etc Sales on Garden Days		175	
59	Telephone Kiosk		88	
-	Insurance Claim Payment (Burglary)		335	
196	Other		219	817
	INTEREST ON INVESTMENTS			
6619	General Fund		5764	
448	Building Maintenance Fund		256	
139	Garden Fund		123	
194	Lecture Accounts		232	6375
				19421
Legacy				
19865	EXTRAORDINARY RECEIPTS			
-	Repayment of Treasury Stock (Matured)		4800	
-	Donation in Memory of Miss Phyllis Winter		1000	5800
				25221

1992	PAYMENTS	£	£
	ACCOMMODATION AND SERVICES		
2368	Caretaker	2506	
5185	Repairs and maintenance	4957	
357	Garden	348	7811
683	General Rate	658	
1090	Insurance	1319	1977
294	Water Services	382	
1129	Gas	893	
709	Electricity	710	1985
215	Postages	221	
403	Telephones	468	
619	Printing and Stationery	761	1450
	ACTIVITES		
276	Meeting Expenses	731	
442	Library (Books etc)	432	
902	"Proceedings"	884	
154	Museum	60	
104	Subscriptions to other Institutions	124	2231
	SUNDRIES		
167	Nat West Bank Charges	77	
-	Garden Tools etc Replacements	266	(After Burglary)
59	Other	69	412
4187	Surplus (Receipts less payments)		3555
			19421
	(deduct above surplus		-3555)
3981	EXTRAORDINARY PAYMENTS		
	Purchase of Treasury Stock	4800	
	Purchase and installation of Computer	4494	9294
4371	Surplus (Transferred to Reserves)		61
			25221

AUDITORS' REPORT - We have examined the above Receipts and Payments Account with the books of The Society and vouchers for payment and certify the same to be correct.

A.G. JENKINSON, G SPARKES - HONORARY AUDITORS

T.D. WHITSON - HONORARY TREASURER

BOURNEMOUTH NATURAL SCIENCE SOCIETY (A REGISTERED CHARITY)

INVESTMENTS AND RESERVES

VALUE AT 30.09.92 £		COST £	VALUE AT 30.09.93 £
	NARROW RANGE		
628	£1500 4 per cent Consolidated Stock	979	802
507	£500 9 per cent Treasury Bond 1994	512	518
1691	£1620 9½ per cent Treasury Loan Stock 1999	1598	1825
14601	* National Savings Deposit Bond 8005768/1	12654	12654
17427		15743	15799
	WIDE RANGE		
760	£750 9 per cent Treasury Bond 1994	788	777
4841	£4800 9 per cent Treasury Bond 1992-96	REPAYED AT PAR	
-	£4947.24 8 per cent Treasury Stock 2009	4800	5294
13308	2706 M&G Charifund Income Units	9984	18707
18909		15572	24778
	SPECIAL RANGE		
15009	12,789.9 COIF Fixed Interest Income Shares	15000	17183
	AVAILABLE FUNDS		
2512	* N.S.B. Investment Account	2724	2724
14024	* COIF Deposit: General Account	16833	16833
2194	* No 2 (Lecture) Account	2297	2297
1070	* No 3 (Lecture) Account	1090	1090
	Portman Building Society:		
2448	* Building Fund Maintenance Account	1567	1567
1565	* Garden Fund Account	1833	1833
1304	* Current Account	684	684
	National Westminster Bank:		
766	* Business Reserve Account	777	777
469	* Current Account	589	589
72	* Cash in Hand	38	38
26424		28432	28432
77769	GRAND TOTAL	74747	86192

CHANGES IN MONEY FUNDS (Items * above)

Total Value at 30.09.92	41025
Receipts: Repayment of Stock	4800
Surplus from 1992-93	61
	45886
Payments: Purchase of stock	4800
TOTAL VALUE AT 30.09.93	41086

BUILDING MAINTENANCE FUND	£
Balance at 30.09.92	2448
Receipts	268
	2716
Payments	1137
Balance at 30.09.93	1579

GARDEN FUND	£
Balance at 30.09.92	1565
Receipts	342
	1907
Payments	74
Balance at 30.09.93	1833

PUBLICATIONS AND PERIODICALS RECEIVED

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The following publications were received in the Library during the year. Some of them were gifts from members who subscribe personally to the particular Society. The Library Committee are glad to record their appreciation of such gifts.

Alpine Garden Society Bulletin
Birmingham Natural History and Philosophical Society - Proceedings
Botanical Society of the British Isles - Watsonia. Proceedings
Bristol Naturalists' Society - Proceedings
California Academy of Sciences - Proceedings
Cambridge Antiquarian Society - Proceedings
Council for British Archaeology - Newsletter
Dorset Trust for Nature Conservation - Newsletter
Dorset Natural History and Archaeological Society - Proceedings
Geology Today
Hampshire Field Club and Archaeological Society - Proceedings
Hertford Natural History Society - Transactions
Museums Journal
National Geographic Magazine
National Trust - Newsletter
Nature
Oryx
Royal Horticulture Society - "Gardens".
Senckenbergische Naturforschende Gesellschaft - "Natur und Museum"
Societe Jersaise - Annual Bulletin
Torquay Natural History Society - Transactions and Proceedings
Zoological Society of London.
Zapadoceske Muzeum. Zoology

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